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SURGICAL PEDIATRICS*

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OKLAHOMA CITY

This afternoon, we shall devote our entire time to surgical pediatrics. Almost ten per cent of all surgical cases occur in children and we should, therefore, develop a pediatric attitude when dealing with surgical problems of childhood. The child is a definite clinical entity and the surgical problems of that period are properly dependent upon the reactions and conditions associated with the childhood. The evaluation of surgery in childhood by referring to the same surgical undertaking in an adult is as unreasonable as the comparison of the adult's diet with that of an infant. We should recall the old and oft repeated adage of John Lovett Morse, "The child is not a little man," and not overlook the aphorism of Barrington Ward, "The adult may be treated safely as a child but the converse may lead to disaster."

In some respects the same surgical questions occur in children and adults while again there is a wide difference. The surgical problems of infancy and childhood deal mostly with congenital deformities and malformations which affect new and perhaps undeveloped organs or body systems; namely, harelip, pyloric stenosis, intussusception, spina bifida, hypospadia, etc. On the other hand, surgery when applied to the adult is usually directed to the repair or removal of old and worn out parts and the treatment of damaged organs as thyroidectomies, biliary tract disease, gastro-enterostomies, and malignancies.

Even though the surgical complaint be the same, the reaction to that complaint may be entirely different in the child than the same pathological entity in the adult. The differences between children and adults are not only differences in size but there are definite anatomical, physiological, chemical, and neurological, variances. These diversities created the specialty, pediatrics, in a medical sense, but pediatrics in surgery has only recently been receiving special attention in this country. Even today there is not an up-to-date text book on the subject.

The normal infant has a chest and pelvis which are small compared with his large prominent abdomen. Within the abdomen, the liver occupies a large part of the peritoneal cavity, its size being one-eighth of the body weight at birth as compared with one thirty-second in the adult. A small undeveloped film-like omentum is picked up and the stomach which at birth is the size of an egg only holds an ounce. The caecum may not have rotated to the right and descended into the right iliac fossa. Only the terminal colon is in the pelvis and the bladder is a spindle-shaped organ located in the abdomen instead of the pelvis and even when empty is in direct contact with the abdominal wall. The obscure thymus gland reaches its maximum size the second year and developmental bone changes are progressive from infancy to beyond maturity. The foregoing are only a few of the structural variations in the infant and child.

The present physiological trend in general surgery is particularly applicable to

*Chairman's Address, Surgical Section, Annual Meeting, Oklahoma State Medical Association, Tulsa, May, 1937.

pediatric surgery, for during childhood the physiological processes are at their peak of development. Metabolism is increased as much as twenty per cent and, due to the rapid changes in body structure, this metabolism is also unstable and the child is more subject to violent reaction from slight cause. Consequently, most disease is sudden in onset and the symptoms are intense. When infection attacks a child, it is invading virgin territory and the reaction is general and affects the entire organism. This intense reaction does not localize early but there is a general reaction to even minor divergencies from the normal. The younger the child, the more apt are the signs and symptoms to be general constitutional expressions rather than local. Temperature control and the maintenance of the fluid reserve are essential. Loss of a pound a day, which is frequent, is not compatible with life in the child. Infants require more water per pound than adults, and when a child's weight loss is ten per cent, the outlook is serious and when that loss is twenty per cent, there is usually a fatal termination.

Surgical shock is therefore easily produced on account of the narrower water balance threshold. The fluid shift from the blood stream is not well tolerated and hemorrhage is poorly borne. The large amount of sugar stored in the liver, as glycogen, is soon used up, contributing to the production of acidosis, which may be caused by abnormal production, excessive retention, or faulty elimination of acids.

It is not that children do not stand surgery well, but they do not stand adult surgery well. Surgical problems and procedures in the child are consequently not the adjustment of principles and technique only. There is a complete change of attitude toward the organism as a whole, realizing that in childhood the symptoms are more acute, the reactions more severe, the metabolism more active, the chemistry unstable, and the margin of safety much narrower.

Congenital deformities and malformations permit deliberation in examination, diagnosis, and treatment, but acute surgical conditions demand early diagnosis, prompt treatment, and the time element is an even more important factor than in the adult. In dealing with the child, we cannot discuss his complaint with him, but must observe his expression, his movements and posture. The history obtained from the mother may be more important than the physical findings, and anyone may find a rigid abdomen with a cold hand. Early symptoms in the child are not limited to any particular region as they are in the adult.

Acute onset with fever is frequent and digestive disturbances accompany most diseases. Critical observation, skillful examination, and keen judgment save valuable time, and the surgical procedure necessary may be carried out promptly.

In our enthusiasm to treat the surgical pathology diagnosed, we must remember that treatment of the individual is of first importance. This rule applies particularly to burns. Over half of the fatal burns in the United States occur in children under six, and the average age is three. A burn is primarily a sterile traumatic wound of varying depth, and should be looked upon and treated as such. The child should be placed on sterile sheets under a light cradle. There is a fluid shift of the plasma from the blood stream to the burned area, resulting in decrease in blood volume, concentration of erythrocytes, and the hemoglobin may reach thirty per cent above normal. The decreased blood volume and dehydration must be corrected by glucose and saline solutions given subcutaneously, intravenously and *per* rectum. Whole blood transfusions are very valuable. The foregoing having been carried out, the burned areas are treated with five per cent tannic acid solution which crusts over the burn, precipitates the hypothetical toxins and does away with the pain, suffering and traumatization of daily dressing. Real success is not, however, due to any particular drug or dressing but depends on the intelligent, ever watchful and persistent carrying out of an adequate program of general care. First, treat the organism as a whole, for the metabolic disturbances which are clinically wound shock, primary and secondary, and the succeeding toxaemia. Secondly, treat the primarily sterile wound or burned area itself.

Appendicitis, which will be considered in detail in a later paper, is the most com-

mon of all acute surgical diseases of the young. Early diagnosis is essential. Diffuse colicky pain, followed by nausea, with or without fever, should arouse our suspicions. The right lung and the right kidney should be proven not guilty before operating. Meckel's diverticulum may strangulate a loop of bowel, or ulcerate through the aberrant mucosa of its base, be wrongly diagnosed, and operated as appendicitis.

Pneumococcus peritonitis is usually operated as appendicitis when conservative treatment would have been the wiser procedure. Pneumococcus peritonitis usually occurs in girls, is slower in onset than appendicitis, and does not localize for many days. Diarrhea is more frequent than constipation, and there is severe abdominal pain with marked toxemia. The abdomen remains soft to palpation and there is definite tenderness on rectal examination. Conservative treatment and drainage of the localized abscess later is the treatment of choice, for the child is suffering from a septicaemia. Little is to be found at early operation. The peritoneal cavity cannot be drained, and nothing is gained by opening the abdomen.

Acute remittant abdominal cramps occuring in a child, usually under one year old, associated with a palpable abdominal mass, blood and mucus in the stools, no temperature, evidence of shock, and a soft abdomen, are diagnostic signs and symptoms of intussusception. Even though the diagnosis is not difficult and the intussusceptum often palpated *per* rectum, it is unusual to see a case the first few hours when prompt surgery is indicated and the prognosis good. Far too many are seen thirty-six, forty-eight and seventy-two hours after the onset when the opportune time for surgery has gone by and recovery is possible, but not probable.

Hernia should be mentioned if only to bring out the optimum time for surgical repair. It is almost impossible to keep an inguinal herniorraphy wound clean on a child under two years of age. Operation early is also more difficult on account of the delicate and small structures to which surgical trauma may do as much harm as good. Inguinal herniorrapy should, therefore, be avoided in the child under two, and in the child under four it should be a short simple procedure. A short incision is made over the internal inguinal ring. The sac is located, ligated, excised, and the stump transfixed beneath the internal oblique muscle. Two or three interrupted sutures followed by the skin closure completes and cures the hernia. A compound tincture of benzoin dressing is more satisfactory, in the experience of the writer, than collodion in sealing the wound.

Pyloric stenosis has been studied extensively and treated both medically and surgically. Occuring in early infancy, the diagnosis rests upon spitting up of food shortly after birth, which becomes progressively worse until three or four weeks later, when the vomiting becomes projectile. The stools are now smaller and less frequent and the classical picture may show the peristalsis with ball-like waves across the abdomen. Palpation of the pyloric hypertrophy is not the diagnostic criterion, as it often cannot be palpated when the stomach is empty. Again, one should not wait for the pylorus to hypertrophy until it becomes palpable, for during the hypertrophy of the pylorus, the stomach is dilating, and its walls become thick in attempting to force food through the pylorus. Especially in these delayed cases do we see the undernourished dehydrated infant sent to the hospital in poor condition for surgery.

Here may be the opportune time to stress the importance of the acid-base equilibrium, not only in cases of pyloric stenosis but in all cases in infancy where there is vomiting. Remittent vomiting causes loss of hydrochloric acid in large amounts, and base chloride in less amounts. This loss is compensated by bicarbonate retention in the blood and tissue fluids, and the result is alkalosis of varying severity. This is as serious, or more so, than a shift of the acid-base balance to the acid side. The breathing becomes slow, shallow, depressed, and irregular, with long apnoeic pauses. Hypertonicity, carpopedal spasm, Chvostek's sign, and convulsions are diagnostic signs. Tetany may be produced and will contribute to the anhydraemia. The urine may be, and usually is, strongly acid on account of the low base carbonate. The presence of alkaline urine will rule out acidosis, but acid urine does

not rule out alkalosis in conditions associated with vomiting. Death may occur promptly as a result of collapse, respiratory cessation, or generalized convulsions. Restoration of the acid-base equilibrium must therefore be restored before surgery and we must remember that alkalosis accompanies vomiting invariably where gastro-intestinal obstruction is present.

The Fredet-Rammstedt operation for pyloric stenosis may be performed under local anaesthesia. The three operative bugaboos are: hemorrhage at the cardiac end of the pylorus, penetration of the lumen at the distal end, and evisceration. The incision through the hypertrophied pylorus may be made with a blunt instrument, thereby avoiding penetration of the bowel lumen. Unusual care in closing the abdominal incision and the use of interrupted silk sutures prevent evisceration. Post-operative management is fully as important as pre-operative care and should be in charge of a pediatrician. Feedings begin three to six hours following operation. Close cooperation between the pediatrician, the surgeon and the nursing staff will reduce the dangers of surgery in infancy.

Thoracic empyema is a frequent problem. In children empyema demands more acute attention than in the adult. The age of the child, the etiological organism and the virulence of that organism are definite factors. The infection attacks a non-resisting pleura, which is slow to form adhesions and localize the infection. The pleura does not thicken rapidly and the mediastinum remains mobile. Open drainage with resulting pneumothorax is therefore contraindicated. By the use of aspiration and closed drainage, rapid sterilization and obliteration of the empyema cavity is attempted. Prevention of chronic empyema is constantly kept in mind. When the pus becomes thick and the general condition permits, open drainage may be instituted and daily irrigation with Dakin's solution ordered.

Another acute surgical problem still frequently undiagnosed is acute osteomyelitis. Most cases are treated as rheumatism. Its seriousness cannot be exaggerated. Septicaemia and death may follow in rapid succession. Etiologically, trauma is a factor and frequently provides the location for blood born infection, the portal of entrance being elsewhere. Acute pain and tenderness near a joint in the presence of fever should arouse one's suspicions. The blood picture is helpful but x-ray findings are of no value during the acute stage. The earlier diagnosis and drainage is carried out the better. Hours may make a difference of weeks or months in the period of convalescence. Drain and immobilize promptly, and the morbidity and mortality will be sharply reduced.

During the consideration of the surgical problems in childhood, we should remember always the possibility of the child being a diabetic. Diabetic children are living. Each year increasing thousands of diabetic children are living in all of whom any surgical problem may present itself. Diabetes is one hundred per cent hereditary. Any operation may be performed on a diabetic child if Joslin's three diabetic horses—diet, exercise and insulin—are properly managed. Remember that infection reduces the potency of insulin seventy-five per cent, and *with* infection, dehydration, acidosis, coma and death may follow in rapid succession. Avoid hypoglycaemia. Give too little insulin before the operation rather than too much. Examination of the urine for acetone should be a routine preoperative procedure. If no acetone is found, there is no diacetic acid present. The administration of soda bicarbonate is dangerous. The use of glucose buffered by insulin is much wiser. With recognition and control of the diabetes before and during the operation, surgery in the diabetc child is not contraindicated.

Successful results in surgical pediatrics are largely dependent upon the first physician who sees the patient. Prompt recognition of the surgical condition, and complete medical and surgical cooperation in carrying out the appropriate treatment are essential to success.

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There are at least two hundred more men in the state eligible for membership in our Association. Let's make members of them during 1937.

Bilateral Acute Mastoiditis With Many Complications—Recovery*

MARVIN D. HENLEY, M.D.
TULSA

The unusualness of this case and the tremendous recuperative powers of a desperately sick child tend to make this a most interesting report. The family doctor had seen this child the day previous to his admittance to the hospital. I was called in consultation the evening of the day of his admittance to the hospital. This was a private patient.

Case Number 51538: The patient was a white boy, age eight, quite anemic in appearance, very undernourished, very underdeveloped, admitted to the hospital May 23, 1936. He had the appearance of being very acutely ill. He gave a history of having had a purulent discharge from both ears for two weeks before coming to the hospital—the ears rupturing spontaneously. Twenty-four hours before coming to the hospital he suddenly became worse, with a rigor and chills, and temperature swinging very high (106). The past history as well as the family history were essentially negative. Physical examination at the time of admittance showed both ears profusely discharging a purulent substance; extremely tender behind both ears, but particularly the left; posterior walls of the external auditory canals sagging; tenderness along the path of both sterno-cleido-mastoid muscles; neck stiff enough to raise the patient off the bed by lifting in the region of the occipital bone; throat enlarged and infected tonsils, apparently acutely inflamed; twenty-four hours after admittance, the left ankle became extremely red, tender and swollen.

Laboratory report of the mastoid regions at this time read: "The x-ray reveals complete obliteration of the mastoid cells on the left side through a rather dense shadow indicating the presence of an acute infection as found in acute mastoiditis. The mastoid cells on the right side are also somewhat lacking in transparency with the suspicion of the involvement of the mastoid cells on the right side as well."

Throat culture negative; repeated smears for malaria negative; blood culture staphylococcus; spinal fluid clear under slight pressure and cell count low; Wasserman negative; urinalysis negative; W. B. C. 16,500 with one eosinophil, one juvenile, twenty-six stabs, seventy segments, twenty lymphocytes; R. B. C. 2,630,000; hemoglobin forty-eight per cent.

The child was critically ill—so no operative procedures were instigated at the time because of the extremely poor surgical risk. May 26, 1936, another W. B. C. was done. It showed: W. B. C. 12,100 with nine stabs, eighty-one segments and ten lymphocytes, indicating an increasing gravity of the condition. By this time both ankles were swollen, red and tender. May 28, 1936, two hundred five cc. of whole blood was given by transfusion. June 1, 1936, there were W. B. C. 25,350 with five juveniles, ten stabs, sixty-five segments and twenty lymphocytes, indicating a show of resistance of the body to the infection. June 5, 1936, three hundred sixty cc. of whole blood was given by transfusion. June 7, 1936, W. B. C. were 12,500 with one myelocyte, three juveniles, twelve stabs, seventy-one segments and fourteen lymphocytes, which to us indicated an absence of reaction to the transfusion or an increased amount of infection. On June 9, 1936, there was two hundred ten cc. and on June 16, 1936, four hundred fifty-five cc. of whole blood given by transfusion. June 20, 1936, W. B. C. were 25,100 with three juveniles, ten stabs, sixty-nine segments and eleven lymphocytes. June 25, 1936, three hundred eighty-five cc. of whole blood was given by transfusion. July 6, 1936, W. B. C. were 32,450 with one eosinophil, seventy-six segments, twenty-one

*Read before the Eye, Ear, Nose and Throat Section, Annual Meeting, Oklahoma State Medical Association, Tulsa, May 12, 1937.

lymphocytes and two monocytes. He was so much improved clinically that no other blood transfusion was given and on July 22, 1936, the W. B. C. was 28,200 with one basophil, two eosinophil, three juveniles, fifteen stabs, sixty segments and twenty lymphocytes. The hemoglobin at this time was eighty-five per cent and R. B. C. 4,-640,000. Daily temperature during this interval ranged from 97 to 106.4 with daily chills. By July 7, 1936 the temperature had gradually fallen until the fluctuation was between 96 and 100 degrees daily.

During this period of about forty-five days he had multiple abscesses formed and opened and drained, starting as before mentioned with the ankles. His extremities during this time had become so drawn that he was unable to turn in bed or feed himself. He continued to take nourishment well from the time he entered the hospital. Pus cultured from the various absecsses showed the same staphylococcus. An autogenous vaccine was prepared and given with questionable results.

Along the last part of August, 1936, he began to run practically normal temperature. Blood counts were done during this interval and they were all about the same as the one of September 17, 1936, which showed W. B. C. of 16,600 with three eosinophils, sixty segments and thirty-seven lympocytes; R. B. C. 4,213,000 with eighty-one per cent hemoglobin. A report from the x-ray laboratory September 4, 1936, read: "The x-ray reveals a dislocation of the left femur upward and backward and with evidence of shrinkage and sclerosis of the acetabular cavity. This dislocation is of long standing." The joints involved had received light therapy and short wave diathermy for several weeks previous to this. Under general anaesthesia and avertin an orthopedist on September 25, 1936, manipulated the left hip and applied a hip cast. The short wave diathermy was continued. A report from the x-ray laboratory October 2, 1936, read: "The stereogram of the left hip joint reveals the head of the femur to be in the acetabular cavity at right angles. The head shows some signs of absence." November 27, 1936, the W. B. C. was 11,000 with four stabs, fifty-one segments, thirty-nine lymphocytes and three monocytes. A report from the x-ray laboratory November 27, 1936, read: "A. P. view of the left hip joint, in cast. The hip joint appears to be in perfect position at this examination." December 4, 1936, under general anaesthesia the left leg was put in twenty-five degree flexion and twenty-five degree abduction in cast and the tonsils and adenoids removed. A report from the x-ray laboratory December 7, 1936, read: "The x-ray reveals the head to be yet in normal position. The head of the femur lies in the acetabular cavity." There was a microscopical examination made of the tonsils by the pathologist. His diagnosis was chronic tonsillitis. The orthopedic surgeon later removed the cast and applied a brace to the left leg. This child undoubtedly had an acute tonsillitis, a bilateral suppurative otitis media, a double acute mastoiditis (unoperated), a meningeal irritation, a bilateral sinus thrombosis, a generalized septicemia, an acute arthritis, a secondary anemia and a dislocation of the left hip.

This was the type of case that came from a family in very moderate or less circumstances, and one that the attending doctor would like to get out of the hospital as soon as possible to alleviate the financial burden on the family. When it was seen that this would not be possible the patient was transferred to the Crippled Children's division of the hospital. During the last few months of 1936 he was in and out of the hospital and to the Junior League Convalescent Home for crippled children. At the present time he is at the Crippled Children's Home walking, playing and carrying on a practically normal existence. It is true he is still wearing a brace on the left leg but the orthopedic surgeon assures us that this will soon be removed. He is expected to be discharged from the Crippled Children's Home on any day now.

Summer Diarrhea in Babies

Casec (calcium caseinate), which is almost wholly a combination of protein and calcium, offers a quickly effective method of treating all types of diarrhea, both in bottle-fed and breast-fed infants. For the former, the carbohydrate is temporarily omitted from the twenty-four-hour formula and replaced with eight level tablespoonfuls of Casec. Within a day or two the diarrhea will usually be arrested, and carbohydrate in the form of Dextri-Maltose may safely be added to the formula and the Casec gradually eliminated. Three to six teaspoonfuls of a thin paste of Casec and water, given before each nursing, is well indicated for loose stools in breast-fed babies. Please send for samples to Mead Johnson & Company, Evansville, Indiana.

Operative Procedures of the Nose for Cosmetic Purposes*

CURT VON WEDEL, M.D.
OKLAHOMA CITY

As stated in the title of this paper, it is my wish to show today a few procedures which are done under local anesthesia, but which should not be done outside of a hospital except by one who has a well organized operating department associated with his clinic or office.

These procedures are all done with novocaine and adrenlin. We never use over twenty cc. and usually ten cc. of the solution is sufficient. These cases should all be free of colds, should have no breakfast, should have adequate rest the night before, and one-half hour preceding surgery should have a quarter grain of morphine. All the hairs within the nose should be carefully clipped and the nose very carefully washed with soap and water the night before, particularly to remove all sebacious secretions. The patient should be made as comfortable as possible on the operating table with a soft pad or air cushion. The hair should be carefully protected by a towel firmly attached with adhesive plaster. It is immaterial what type of preparation is used. In New York the men are using merthiolate. Personally, I use nothing but alcohol, as iodine, mercurochrome, merthiolate, etc., leave a temporary staining which is rather disagreeable to the patient.

This work which I am showing you today, except for a few modifications, particularly associated with saddle noses, which will be mentioned as we go along, is primarily the work of Joseph of Berlin.

The first type which we will discuss today, is that type which may be classified as the "hump nose," with or without a broadened base and with or without an elongated tip and broadened ala; namely, the so-called Semitic nose. One of course sees many modifications of this type of nose. Some patients have a big bony hump and a small cartilagenous hump; some have a small bony hump and a large cartilagenous hump; some have a marked elongated nose, while others have a broad base with a very thick and broadened tip. I am going to discuss in simple language the surgical procedure for the extreme type. This nose has a bad bony hump associated with a bad cartilagenous hump and broadened base. It is too long and at the same time has a broad ugly tip. Any of these steps can be modified to fit the particular nose in question.

Let us assume then, that we have one of these marked exaggerated Semitic types of nose.

A mask should be made of this patient. Pictures are taken in three directions. The patient should be studied in profile as well as in the direct view. The nose should be split down through the center, on the mask, and one side of the mask should be cut down to the exact size that we wish to make this nose. This should be shown to the patient and an agreement reached as to the exact type of nose we wish to secure. At this point I wish to emphasize this fact —do not try to be too radical, as a person with a very large nose would not look well with a little tiny nose. One must use careful judgment not to make too great a change in the nose. Then, having decided on what we want to do and the patient having been prepared, using a very fine needle we inject a few drops of novocaine containing twenty drops of adrenlin inside the nose just above the ala cartilage. We then explain to the patient that her heart probably will pound a little because of the medicine we are injecting. We then, being careful not to use too much solution, inject above and below the ala cartilage. Then with a clean, very fine (26) needle, we go to the outside of the nose and in-

*Read before the Eye, Ear, Nose and Throat Section, Annual Meeting, Oklahoma State Medical Association, Tulsa, May, 1937.

ject a small amount, thoroughly infiltrating the nose as high as the gabella and well down to the maxilla on each side. The tip is then injected as well as the columella. We use a small amount of solution containing usually twenty drops of adrenlin to the ounce. This causes blanching and is not absolutely free of danger from a standpoint of sloughing. For the beginner it may be better to use a larger amount of solution and less adrenlin. Bleeding with this amount is practically negligible. Using a small amount of five per cent cocaine, one applicator is put high in the nose and the other low in the nose, on both sides, so that the mucous membrane is practically deadened. One does not have to do this but it does make the patient more comfortable and the little sputtering and irritation that occurs with the placing of the applicators is justified because of the future ease.

INSTRUMENTS

We use Joseph's instruments as shown on the table before you and in the slides.

OPERATIVE PROCEDURE

Using a flexible retractor the right nostril is elevated, the junction of the ala to the nasal cartilage is found and a bistry pushed in. Using a sliding free motion the entire skin is elevated on the right side of the nose. This same procedure is followed on the opposite side. After the skin is completely elevated, a periosteal elevator is used, and the periosteum is elevated from the nasal bones and the nasal bones completely freed. A blunt pointed bistry is then pushed through both openings from the left to the right, carried downward towards the tip, the septum is severed from the ala cartilage and incision is carried down behind the columella cartilage to the spine, freeing the whole nose. There will be no bleeding if your injection has been proper, and absolutely no pain. A little nicety of technique is to cover the mouth with two layers of wet gauze, held in place with the weight of two Allis forceps. This is not necessary, but allows the patient free breathing, free air way, and takes away apprehension. A straight angle saw is then gently put through the opening and with a few rapid strokes the bony hump is cut through on the left, sawing towards the right. We then turn over to the right side and completely sever the bony hump. Then with a blunt pointed bistry the cartilagenous hump is cut away, straight down from the nasal cartilage, and the hump intact is lifted out. A file is then placed within the nose and any irregular or ragged edges are filed away. We are then aware that we have an over abundance of nasal cartilage, so a "V" shaped piece is cut away from either side. This is a simple procedure, but one which was the most difficult portion of this operation for me to acquaint myself with, and it was because I did not understand what was going on. I am therefore illustrating this for you, both in the pictures, and by using scissors and a piece of paper.

We are now ready to shorten the nose:

The tip is dislocated to one side and with a heavy scissors we cut away as much of the septum as we feel we should, cutting a small amount away each time until we find out exactly how much we wish removed. Do not get the nose too short. However, I wish to say that it is seldom that one gets the nose too short. Having shortened the septum we now must fix the columella cartilage to the septum and this is done by two sutures of linen placed through the columella cartilage and septum and tied snugly. One can elevate or depress the tip of the nose fully one-half inch by this procedure and by trying it out one knows exactly where one wishes to place the tip of the nose. This is one of the most important steps. If these sutures are correctly placed the nose will be perfectly straight. These sutures, by the way, are the only sutures that are necessary to be placed, and they should remain in situ five to seven days.

We are now ready to narrow the nose:

A small incision is made just above the columella cartilage very close to the maxilla, a small bistry is pushed forward, separating the skin, and then a right angled elevator is used, elevating the periosteum. A right angled saw is then placed in this opening and the tip of the saw must be as high as possible, well up into the corner of the eye, and with a very rapid motion, the upper portion of the bone is sawed through. First the nasal bone and then the spine of the maxilla is cut through. One feels a peculiar little jar as the saw goes through. This procedure is repeated on the

opposite side, and then the nasal bones are completely broken free from their attachments and crushed inward. If one does not cut the mucous membrane, and one should not, they automatically assume the proper position just as the closing of two doors which meet.

We are now confronted with making the tip smaller:

The columella cartilage already has been separated from the nasal cartilage in our first incision. A little novocaine is now injected around the edge of the ala, an incision is made just within the border of the ala and along the angle. This is Safian's modified method and is much better than the Joseph method. The ala cartilage is now incised along the lower margin of the ala and along the nasal edge as shown in the accompanying slide. It is carefully separated from the skin and it is dislocated outside of the nose. The necessary amount is cut away from the inner and upper portion, and it is pushed back. One can immediately see, by the contour of the nose, whether enough has been taken away and if not, more can be taken away. One sees immediately how nice the side of the nose looks, and adjusts itself. The same procedure is done on the opposite side.

In the meantime, if there is any little bleeding the patient from time to time is allowed to spit it up and if it so happens, and it occasionally does, that she becomes sick from morphine, she is allowed to vomit and empty her stomach. A sterile basin should always be at hand.

The nose is now carefully cleaned inside and lightly packed with vaseline impregnated Kephrine gauze. Two straps of adhesive plaster are attached over the tip so as to hold it in place, and one broad piece is attached to the nose and carried up on the forehead to hold the skin in its new position. A mold is made from dental compound. The compound is softened by putting it in hot water, and then this soft mass is placed on a piece of flannel and a cast of the exact size of the nose is made. The cast is tightly strapped in place. It is better than any other means of fixation. It allows for swelling, still maintains constant pressure, and allows the patient to see. The patient is then put to bed and that evening a small dose of morphine is given for quiet particularly. The following day the pack is removed, the nose cleaned out with peroxide and Dakin solution, and a little sterile vaseline placed within the nostril so as to keep secretions soft. The adhesive tape is readjusted and the cast is readjusted. We keep this on for about four or five days. After that we have the patient wear either a Joseph or a Safian brace for four or five days, depending on the extent of our operation. In the most extreme cases, if properly done, properly injected and proper pressure is applied, they will be able to return to their duties in two weeks without any internal or external appearance of having been operated on. By that time the black and blue has all disappeared and all the swelling has gone. Depending on the extent of the case, we feel that a complete end result is obtained in from five to fourteen days.

The saddle nose, non-syphilitic, with no destruction of the lining: These are usually the result of accident. Occasionally they follow infection with destruction of the cartilage.

A cast of the face is made and the defect on the cast is filled with artist putty. Then, using dental compound, a mold is made which will exactly fill the defect. This is put in bichloride to sterilize and preserve it until we are ready to operate the patient.

OPERATIVE PROCEDURE

Incision is made just above the ala cartilage using bistry and scissors and the skin is very carefully elevated. It is usually best to open up the nose on both sides. The mold that had previously been made is placed in this defect to see just how big we wish to make our cartilage which is to be implanted in this defect. If the mold does not fit exactly it is molded until it does. Pressure is applied to the nose. New gloves and fresh instruments are used and a small incision is made over the costal cartilages, following injection with novocaine, by either using Kelly's grooved chisel or dissecting the cartilage out in mass. Bleeding points are all controlled and wound closed very carefully. Then this piece of cartilage is cut to just the exact size and shape of the mold. Any excess cartilage that we may have is put away in five per cent merthiolate solution

and kept in the ice box—we can keep this for a year or longer in this manner and use it for cases from which we can not obtain cartilage. The piece of cartilage is cut to the exact size and shape of the mold, is then slipped in the incision above the triangle cartilage of the nose and below the skin. It should fit exactly and completely and evenly fill the defect. Incisions in the nose are then carefully closed with interrupted horse hair. The nose is gently packed and the pressure mold of dental compound on flannel made and applied. This mold holds the piece of cartilage in situ for about four days. Then all dressings may be taken away and stitches removed. The patient should be able to go about his or her business in a week. Whenever we take a complete cartilage the chest is tightly strapped and this strapping is maintained for a week. This sometimes is slightly painful but not nearly as painful as one would imagine. Patients as a rule do not complain much about it.

The third type of nose—the bulbous or Biford type:

The tip of the nose and the ala cartilage are infiltrated with about five cc. of novocaine containing fifteen to twenty drops of adrenlin. The columella cartilage is severed from the septum. The tissue lying between the two columella cartilages is removed, the columella cartilages cut on each side and a stitch is taken holding the cartilage together. The rest of the cartilage, on either side, is completely separated, detaching it from the triangle cartilage above, and from the edge of the ala below, leaving it only attached externally. We then trim it—using scissors one can trim it to any desired shape. It flies back of its own accord and needs no suturing. The nose is carefully and lightly packed. A strip of adhesive is applied over the nostrils to keep the pack in, and another one over the top of the nose to cause the skin to come in contact with the remaining portion of the columella cartilage.

There are, of course, many types of noses. Some, even though they are not what one would call good looking noses, fit perfectly in some faces. Other fairly good looking noses, fit most imperfectly. One should use a great deal of caution and thought before one decides to change a nose. At present however there is absolutely no danger, and quite outstanding results can be obtained. An inferiority complex, which often is associated with nasal disfigurement, may be very great. With simple operative procedures you may change one's entire viewpoint in life and leave him very, very happy.

Hyperpyrexia as a Therapeutic Measure*

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TULSA

Hyperpyrexia is not new. In ancient times hot baths were used in treatment of various diseases. Three thousand years ago Homer described the action of hot baths, especially in states of exhaustion. Practically all ancient races used hot baths in treatment of acute and chronic infections. In Europe in the sixteenth century, people began to fear bath houses because of the dirt, filth, and the rapid spread of syphilis, but later it gradually revived in the form of Russian and Turkish baths.

In Japan between 1688 and 1704 Balneotherapy was first introduced. These were hot waters from volcanic springs. Their temperatures were raised to one hundred two and one hundred four degrees. The treatment usually consisted of about one hundred twenty baths over a period of four or five weeks. Marked curative effects were reported in all forms of syphilis, acute genito-urinary diseases, nervous disorders and other diseases.

In modern times we have much experimental data concerning the effect of temperature on syphilis. This work began in

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1919 by Weichbrodtt[1] and Jahnel,[2] Schomberg and Iseng, Walinski and others. Weyman and Osborne[3] in September, 1929, published the first preliminary report on raising temperature by diathermy. Their first patients were dementia praecox. Several methods are used and recommended to raise temperature such as tuberculin, sterile milk, sodium nucleanate, typhoid vaccine, malaria and others.

There is a broad field today, which is only in its infancy. It is growing fast, however. This field of therapy is now called physical therapy. I know that there is a great deal of confusion in some medical minds as to its uses and indications. The attitude toward physical therapy varies with one's knowledge of the subject, one's environment, and contact with a well regulated department. For example, we know hydrotherapy has been used for a long time in nervous disorders and acute febrile states. There is widespread use of diathermy in pneumonia—for relief of pain, if for nothing else; ultra-violet rays in erysipelas, short wave diathermy in deep-seated abscesses.

In this paper I shall deal with only one small division of physical therapy, that is, hyperpyrexia (fever therapy) as produced by diathermy. This has no reference to inductotherm or radiotherm or short wave therapy, because it still is in the experimental state, and this mode of action is individual.

I shall report a small series of cases treated by diathermy in St. John's Hospital. But first, I should like to give you a brief summary of electrical currents as produced by diathermy.[4] "The effect of an electric current when applied to a living tissue may be thermal, chemical or mechanical or a combination in nature, depending on the physical character of the current. An electric current that flows continuously in one direction is a direct current. If it flows alternately, back and forth through the conductor, it is alternating. The number of times the current passes through a complete cycle of forward and backward motions is the frequency. High frequency currents as generated by diathermy, have a frequency ranging from several hundred thousand to several million cycles per second. The majority of machines deliver from two hundred thousand to three million cycles per second. The object of these high frequencies is to prevent neuro-muscular response. The only immediate and direct effect of traversing living tissue by high frequency current is the generation of heat. Therefore, physiologic effects resulting from diathermy must be dependent on heat produced in the tissues.

"The flow of an alternating current through an electrolyte (as tissue) depends not only on ohmic resistance, but upon the capacity of the electrolyte. The ohmic resistance of an electrical system such as an electrolyte decreases with increase in frequency of the heating current. This decrease in the equivalent series resistance of an electrolyte is of such magnitude in comparison with the concurrent increase in current flow, that the heating will be constant for all frequencies within reasonable limits, provided the voltage impressed on the electrolyte is constant for the frequencies considered.

"Some have said that high frequency currents do not pass through tissue because of skin effects. The term 'skin effects' has no anatomic connotation, but refers to non-uniform distribution of current flowing through metallic conductor. As the frequency is increased the currents tend to flow in great concentration near the outer part of the metal conductor. Skin effect is of importance in metallic conductors, but negligible for electrolytes, and hence for tissues, because of their high resistivity in comparison with copper and other metals. The higher the frequency, the lower the effective resistance of the epidermis and consequently the lower the heat generated therein. It has not yet been determined at what frequency the heat produced in epidermis becomes negligible in comparison with heat produced in deep lying tissues. The skin under the smaller electrode and tissues just below the skin are usually heated to higher temperatures during a diathermy treatment. The heating of the epidermis may be taken as a measure of the amount of current that can be safely administered. With very high frequencies this, however, may be unsafe, because of tendency to heat deep tissues more than superficial."

The diseases for which this treatment of hyperpyrexia may be used are paresis, tabes, parkinsonia, multiple sclerosis, asthma, chronic arthritis and many others.

The physiological effects of the treatment are:[5]

1. Loss of weight, even though a large amount of fluids are consumed;
2. Increase of R. B. C., W. B. C. and hemoglobin;
3. Slight increase of polymorphonuclears and eosinophiles. These return to normal in twenty-four to forty-eight hours.

Blood chemistry shows an increase in:

1. N. P. N. and uric acid.
2. Blood chloride and calcium in sera.

CO^2 capacity of plasma decreases.

Others have different results because of variation in temperature rises. Pulse and respiration are increased in proportion to temperature. As to the blood pressure—the systolic rises; the diastolic drops, due to peripherial dilatation. Later, the blood pressure remains lower.

J. D. Cameron[6] reports in an article his findings:

The blood pressure is variable.

Raised are the:

1. Alkaline reserve plasma (Van Slyke CO^2);
2. Cholesterol, plasma;
3. Hemoglobin, whole blood;
4. Sugar, whole blood;
5. Lecithitin serum;
6. R. B. C., and especially total W. B. C.

Lowered are the:

1. Protein serum (fractions not given);
2. Total nitrogen, serum;
3. Potassium, serum;
4. Chloride, whole blood.

There is no change in calcium, amino nitrogen, Bilirubin. The serum shows practically no change.

In examination of the urine, the substances that are increased are:

1. Specific gravity;
2. P. H. slight;
3. Free acid;
4. Combined acid;
5. Chloride;
6. Urea.

In his conclusion, Cameron believes this to be a sympathetic stimulation. The ones with high alkali reserve do badly, while those toward acid do better, that is, the more vagotonic.

The technique will not be considered in this paper. Hyperpyrexia is not without danger, as a few cases of heat exhaustion and death have been reported. With each case, it is an individual study as to tolerance to fever and the changes which take place in the cellular and chemical structure. From our experiences, I do not believe that any number of treatments can be specified for a course, or to raise the temperature to a certain range to be applied to every case. It should be used only in hospitals by experienced operators, who can recognize symptoms and know the ways of avoiding danger. Contra-indications are:

1. Advanced age (sixty as arbitrary limit, with exception);
2. Cardiac and renal insufficiency;
3. Rheumatic endocarditis;
4. Aortic aneurysm;
5. Advanced arterio-sclerosis;
6. Pulmonary tuberculosis;
7. Diabetes;
8. Late neuro-syphilis with complete dementia.

We began this work in 1931, when we had little previous work to follow as to the dangers, indications and contra-indications. Consequently, all treatments were watched closely and followed by the laboratory. A great deal of laboratory work was done, not only for information as to any changes that might take place, but also to try to determine a single test which could be done in order to know when to stop treatment or to begin again. In our work we found we could rely best on the sedimentation test. Others follow different tests. Dr. Kenneth Phillip and others depend on titration of urinary acidity in their studies of hyperpyrexia in bronchial asthma.

Case No. 1. H. R. F., age forty-two, a barber, April 14, 1931. Multiple arthritis.

His condition began in March, 1927, with pain in the right shoulder, which gradually developed into soreness and stiffness. Six weeks later it began in the left elbow, following which all the joints gradually became involved. The hands were the last to become involved. The patient took one hundred baths in Hot Springs, from which he obtained a great deal of relief. He was able to work from June, 1928, to July, 1929, In August, 1929, the patient had an acute appendix which was removed. He had had a tonsillectomy in 1925, and in 1926 all but six teeth had been removed for pyorrhea. In 1928 those remaining were removed. In 1930 the patient had pneumonia. Since February, 1930, he has not been on his feet, but in bed. From December, 1930, to February, 1931, he has been unable to move himself in bed or to feed himself. Examination is essentially negative except for the joints. Temperature is 98.6. Pulse ninety; respiration twenty-four. The hands and wrists are markedly swollen, especially at the joints. Little fingers are ankylosed. There is marked crepitation in the joints that can be moved. Motion causes extreme pain. The knees, elbows and shoulders are swollen and tender. The hips are tender. The neck is stiff and the spine rigid. The patient is unable to move any joint voluntarily. Mastication is difficult on account of pain.

He had been treated with everything—numerous types of vaccines and antigens; hot baths; salicylates, cincophen and others, but his condition was gradually growing worse. We decided to use hyperpyrexia.

Case No. 2. L. McK., age thirty-one, married, clerk, February 3, 1932. The condition began with pain in the small of his back, occurring about four or five o'clock in the morning. The patient would have to sit up for several minutes, then return to bed and go to sleep. Later, the entire back became stiff and he could not bend over. In November, 1930, the left hip became stiff and painful, and he stooped and limped in walking. He worked until June, 1931—after that staying at home, up and about until August, 1931, when he went to bed. The knees, ankles, neck and shoulders have become involved. The ankles and shoulders are less stiff and painful than the other joints.

The patient had frequent sore throats until tonsillectomy eight years ago. No other illness. One brother had rheumatism

CASE No. 1—H. R. F.

Date 1931	Blood Sugar	Blood Urea	Ref. Index.	Vis.	R.B.C.	Cell Vol.	Corp. Vol.	Sed. Rate	Hb.	Corp. Hb.
4-16 AM	84.7	13.4	1.3496	1.92	3.8			50	11.8	
PM	98.5	14.4	1.3540	2.20				65		
4-20 AM	89.3	11.8	1.3500	1.70	3.2	40.0	124	40	10.1	31.5
PM	79.6	11.4	1.3512	2.00	4.9	40.0	100	40	13.5	27.5
4-24 AM	80.0	10.9	1.3490	1.85	3.6	36.5	103	45	11.8	
PM	99.5	11.5	1.3520	2.00	4.0	38.0	107	50	11.8	
4-27 AM	73.5	10.1	1.3520	2.00	4.1	35.0	87.8	60	13.5	
PM	132.4	11.7	1.3500	1.95	4.8	41.0	89.7	55	13.2	
5-2 AM	94.3	9.0	1.3490	1.80	4.6	46.6	100	65	14.4	
PM	141.8	13.4	1.3518	2.00	4.2	43.5	103	70	13.5	
5-5 AM	89.5	9.7			4.4	36.3	82	65	14.4	
PM	112.3	14.4			5.0	40.4	81	70	15.2	
5-18 AM	85.8	11.4	1.3480	1.90	4.8	39.4	88	75	15.2	
5-20 AM	87.8	11.3	1.3480	1.80	5.0	40.4	81.5	70	16.0	
PM	135.1	17.3	1.3552	bact	5.4	46.6	85	65	16.9	
5-27 AM	94.3	10.5			4.8	39.4	81	63	15.2	
PM	104.1	14.1	bact		5.2	45.6	89	40	16.9	
6-23 AM	84.4	17.4			3.9	38.4	98	90	11.8	
PM	129.0	26.1	1.3568	2.70				22		
Treatment discontinued.										
10-21 AM	86.2	13.9	1.3510	1.90	4.2	42.5	100	70	13.5	
"Walked" in for blood tests.										

SUMMARY: In this patient, there was marked improvement. He was able to be up, dress himself, and drive a car. However, he was not able to return to work as a barber. At the treatment on June 23, 1931, there was a marked drop in sedimentation rate, and he did badly during this treatment, so they were stopped.

six months. Examination shows the patient to be undernourished, lying in bed, unable to move without effort. Movements are slow. The back is stiff. Temperature 98; pulse 100; respiration 20; blood pressure 118/78. There is moderate arcus senilis. There is a marked wasting of the lower extremities with muscle weakness. The knees show a hypertrophic enlargement, motion limited to sixty degrees and very painful. Ankles are negative. Marked stiffness of cervical vertebrae and all other vertebrae is noted. This patient had been treated since the onset with everything, but the disease was progressively worse. Hyperpyrexia was used.

Mrs. E. B. G., age forty, lancinating pains in both feet, knees, wrists. Diagnosis of multiple neuritis, present about one year. Sedimentation rate is six hours with a maximum temperature of one hundred five degrees. After one treatment pains entirely relieved. She felt well and did not return.

In conclusion, I have presented a small series of cases treated with hyperpyrexia. I believe it of great value in our armamentarium of treatment.

I have shown eight cases of chronic arthritis with definite improvement in seven. How long they will continue the improvement, I do not know. We have otained improvement in six of eight present in C. N. S. lues.

I believe that the sedimentation rate is a good guide. We have not given any that were below twenty-five minutes. The single case of multiple neuritis and dissemi-

CASE No. 2—L. McK.

Date 1931	Blood Sugar	Blood Urea	Ref. Index.	Vis.	R.B.C.	Cell Vol.	Corp. Vol.	Sed. Test	Hb.	Corp. Hb.
2-5 AM	91.7	13.5	1.3550	3.10	4.4	36.3	89.0	18	13.52	30.5
PM	120.5	14.8	1.3540	2.65	3.7	39.4	99.0	15	11.83	32.1
2-6 AM	85.1	16.4	1.3527	2.45	4.5	39.4	87.8	12	12.68	28.3
2-8 AM	98.5	12.7	1.3540	2.45	4.2	36.3	86.5	12	13.52	32.2
PM	101.5	12.6	1.3540	2.50	4.3	37.4	87.3	10	13.52	31.6
2-9 AM	98.5	13.2	1.3528	2.45	3.7	36.3	98.3	12	11.83	32.0
2-15 AM	96.1	11.8	1.3530	2.60	4.2	38.4	90.8	18	11.83	28.0
PM	72.2	18.3	1.3535	2.65	4.5	39.4	88.5	11	13.52	30.3
2-16 AM	89.2	12.3	1.3530	2.65	4.3	40.5	90.5	12	12.68	29.8
2-18 AM	94.8	11.7	1.3500	2.40	4.0	35.3	88.0	13	12.68	31.6
PM	183.5	11.1	1.3510	2.35	4.0	34.3	85.6	14	12.68	31.7
2-19 AM	84.4	11.2	1.3510	2.35	4.2	32.3	77.2	13	13.52	32.1
2-22 AM	91.7	10.2	1.3510	2.35	3.9	35.2	90.0	17	12.68	31.3
PM	185.1	9.1	1.3518	2.50	4.2	36.3	86.5	12	12.60	30.2
2-23 AM	81.9	11.3	1.3510	2.30	4.0	35.2	87.1	13	12.68	31.2
2-26 AM	92.3	9.7	1.3500	2.10	4.0	28.1	71.0	15	12.68	32.0
PM	105.3	10.2	1.3510	2.35	3.9	33.2	85.4	14	12.68	32.6
2-27 AM	89.7	11.1	1.3500	2.15	4.0	33.2	83.3	10	12.68	31.7
2-29 AM	96.7	10.8	1.3518	2.10	4.0	31.2	80.0	9	11.80	30.2
PM	101.0	11.2	1.3524	2.35	3.5	31.2	86.4	14	10.90	31.4
3-1 AM	80.3	10.5	1.3512	2.15	3.6	30.2	83.9	15	11.80	32.9
3-9 AM	101.5	13.4	1.3512	2.10	3.6	28.0	77.3	14	10.10	28.2
PM	98.0	14.0	1.3531	2.50	3.7	36.3	97.3	11	10.10	27.3
3-10 AM	85.8	11.9	1.3522	2.30	3.2	30.0	94.0	12	9.30	28.7
3-17 AM	86.2	10.4	1.3510	2.20	3.9	33.2	82.8	10	12.68	32.6
PM	99.0	14.4	1.3550	2.80	4.0	34.3	85.2	10	13.50	33.7
3-18 AM	73.5	14.7	1.3520	2.50	4.0	33.2	84.0	16	12.68	32.0

(Refused any more treatment. Went home. Not much better for past year. Irritable.)

This patient is one in which we could see no improvement. He would not cooperate very well. He wanted to quit after the third treatment, and it became an effort each time to get any cooperation from him. After nine treatments he went home. Only once were we able to raise the temperature to 103°. Most often it was only 101° to 101.5°.

CASE No. 3—MR. E. R.

Date 1931		Blood Sugar	Blood Urea	Sed. Rate Hr.	Min.	Ref. Indx.	Vis.	R.B.C.	Corp. Vol.	Ret. Cnt.	Hb. Grm.	Corp. Hb.
7-6	No. 1	87.7	11.55	1	20	1.3500	1.75				78	
	No. 2	102.5	17.35			1.3490	1.85					
7-4	No. 1	90.9	17.1	0	40	1.3490	1.65					
	No. 2	90.9	18.3	0	45	1.3480	1.65	4.40	90.7			
7-28	No. 1	90.9	13.1	1	30	1.3491	1.65	4.00	89.4		70	29.3
	No. 2	102.5	21.5	0	50	1.3499	1.75	4.33	81		82	32
	No. 3	93.0	25.0	1	15	1.3450	1.70	4.1	84		75	31
8-4	No. 1	87.7	16.6	1	15	1.3489	1.60	3.97	Xces. Ox. 70		75	31.9
	No. 2	106.8	10.5		?	1.3510	1.80	4.22	93.3		80	32
	No. 3	84.0	26.0	1	15	1.3510	1.60	3.89	98.7		75	32.5
8-11	No. 1	84.5	15.45	1	15	1.3492	1.70	4.12	85.6		75	30.7
	No. 2	98.6	16.05	0	50	1.3520	1.80	4.15	106		80	32.5
	No. 3	96.1	17.55	1	10	1.3482	1.65	3.37	101.4		65	32.5
8-18	No. 1	90.9	21.8	1	40	1.3482	1.70	3.90	111.7		75	32.5
	No. 2	96.1	19.3	1	25	1.3500	1.80	3.97	91.5		70	29.5
	No. 3	114.9	20.5	1	20	1.3520	1.80	4.01	93.4		75	31.1
8-25	No. 1	87.3	13.05	2	15	1.3472	1.70	3.63	99.8		70	32.5
	No. 2	93.9	18.45	2	0	1.3491	1.75	3.50	112.7		65	31.3
	No. 3	91.8	13.75	2	5	1.3520	1.80	4.03	82.4		75	31.2
9-1	No. 1	94.8	10.35	1	45	1.3480	1.70	3.71	97.9		70	31.61
	No. 2	103.6	10.65	-	—	1.3490	1.75	4.83	98.1		95	33.95
	No. 3	93.9	12.15	1	15	1.3490	1.75	3.42	103.1		65	29.1
9-8	No. 1	90.0	10.2	1	50	1.3470	1.55					
	No. 2	78.8	11.1	-	—	1.3472	1.60					
	No. 3	76.4	8.9	1	30	1.3470	1.55					
9-15	No. 1	88.1	17.3	1	55	1.3480	1.75					
	No. 2	84.0	16.8	1	15	1.3520	1.80					
	No. 3	100.5	19.65	1	40	1.3880	1.75					

SUMMARY: White male, age 56 years, completely disorientated as to time and place. Numerous convulsive seizures, unable to obtain history. Was given sixteen treatments from July 7, 1931, to March 1, 1932, with a maximum temperature around 106° on four treatments; others 103° to 105°. At the present time convulsions have ceased and the patient has returned to work. He owns and operates a chicken farm.

CASE No. 4—J. M. F.

Date 1931	Blood Sugar	Blood Urea	Ref. Indx.	Vis.	R.B.C.	Cell Vol.	Corp. Vol.	Sed. Rate Hr.	Min.	Hb.	Corp. Hb.
10-7											
4:30 P.M.	80.4	13.05	1.3490	1.80	5.	44.64	88.22	8	10	90%	30.50
9:00 A.M.	86.1	14.4	1.3500	1.80				6			
12:15 P.M.	93.9	20.7	1.3530	1.85		47.75	108.7	4			32.69
10-20	77.	11.55	1.3500	1.85	4.7	43.60	91.78	2		90%	32.02
	76.	14.7	1.3525	1.95		47.75	107.46	2	10		32.28
10-21	90.9	20.4	1.3510	1.8	4.2	44.63	105.50	1	40	85%	33.76
11-5	81.3	12.75	1.3488	1.8	4.2	42.55	101.06		50	85%	34.12
	88.5	13.57	1.3510	2.0		47.75	110.53		45		37.52
	82.3	17.1	1.3510	1.9	4.3	41.51	96.53		32	90%	35.37
12-8	80.8	13.95	1.3484	1.75	4.6	47.77	103.6	4	20	80%	29.32
	83.3	15.45	1.3515	2.	4.6	48.81	105.42	3	15	80%	29.20
	88.5	16.65	1.3490	1.8	4.5	41.52	92.17	4		85%	31.92
1932											
1-14	79.4	10.8	1.3510	1.85	4.6	46.93	101.59	2	20	80%	26.39
	97.5	12.75	1.3510	1.95	4.8	46.73	97.17	2	15	85%	29.65
	96.6	14.4	1.3510	1.8	4.3	49.85	105.93	2	10	80%	31.44

SUMMARY: White male, age forty-nine years, with dissemminated sclerosis of spinal cord, which began August, 1930. He was given five treatments with a maximum temperature of 104°, at end of which time his doctor said the course of the disease was arrested, and has remained so. This is another case which shows the sedimentation rate much more rapid after the second time. After one month of rest it returned to higher levels.

CASE No. 5—D.W.

Date 1931		Blood Sugar	Blood Urea	Ref. Indx.	Vis.	R.B.C.	Cell Vol.	Corp. Vol.	Sed. Rate Hr.	Sed. Rate Min.	Hb.	Corp. Hb.
11-3	No. 1	79.05	11.85	1.3490	1.75	3.9	42.56	106.66	6	30	85%	36.02
	No. 2	134.2	18.3	1.3525	2.05		42.60	103.9	5	50		32.97
	No. 3	99.5	24.45	1.3510	1.85	4.6	42.56	91.05	8		90%	32.70
11-12	No. 1	93.02	11.85	1.3490	1.85	4.2	43.60	102.35	2	25	85%	33.80
	No. 2	109.3	12.75	1.3520	2.1		43.60	98.64	2	50		34.41
	No. 3	128.2	20.4	1.3498	1.9	4.7	43.60	96.20	2	45	90%	32.09
12-1	No. 1	90.	12.3	1.3490	1.75	4.3	49.85	115.39	4	15	85%	33.25
	No. 2	124.3	17.7	1.3512	2.		48.81	119.04	4	45		32.97
	No. 3	124.3	22.2	1.3510	1.9	4.6	40.48	84.59	3	05	90%	32.99
12-15	No. 1	83.3	13.05	1.3500	1.85	4.5	47.77	104.75	2	45	90%	33.35
	No. 2	129.9	20.7	1.3560	2.1		47.77	103.39		55	90%	30.83
	No. 3	131.6	14.55	1.3532		4.8	43.60	94.10				33.56
1932												
1-12	No. 1	78.2	11.91	1.3489	1.7	4.3	42.56	98.97	2	15	85%	33.40
	No. 2	144.9	9.75	1.3510	1.9		40.48	105.26	1		85%	32.08
	No. 3	121.9	20.85	1.3529	1.9	4.5	41.52	92.27	4		85%	31.90

SUMMARY: This was a white man, age forty years, with cerebro-spinal syphilis, which began in 1928 with loss of vision. He entered the hospital on November 3, 1931 and was given the first treatment, at which time the Wassermann was four plus. He was given three treatments with a maximum temperature of 106.2 and one to 107°. The others were around 105°. After five treatments, the blindness cleared sufficiently for him to return to work. This case represents one phase. At the beginning there was a prolonged sedimentation rate, which gradually came down and at the end of the fourth treatment was very rapid—55". After one month's rest the sedimentation rate was more within normal limits.

The remaining cases are reported in brief:

1. The group of arthritics.
2. The Group of C. N. S. Lues.

		Onset	Joint	No. Trtmt.	Sed.	Max. Temp.	Result
1762 1934 L.M.P.	F 29	1 yr.	Swelling of fingers.	2	(1) 8' (2) 4'	102	Improved. Pain relieved. Treatment stopped by her physician.
1255 1934 T.B.	M 44	4 yrs. ago	Feet, knee, back, wrist, neck.	2	(1) 25" (2) 37"	101.5 103	Had been unable to work for two years. Now is back at work, so treatment stopped by Indian Agency.
195 1933 S.M.	F 44	5 yrs.	Hands, hips, knees, ankles.	6	(1) 35" (2) 55" (3) 40" (4) 70" (5) 70" (6) 50"	104.8	Now able to work; practically no pain.
2019 1934 K	F 50	10 yrs.	Knees, elbow, back.	12	(1) 27" (2) 30" (3) 30" (4) 30" (5) 30" (6) 30" (7) 37" (8) 35" (9) 40"	105	Able to do own work. Is free from pain. Movement in ankylose joint increased 20%.
653 1934 E.F.	M 25	1 yr.	Followed fall. Fingers, elbows, shoulders, back, knee.	7	(1) 45" (2) 28" (3) 1' 30" (4) 50" (5) 2' (6) 20' (7) 24'	105.2	Was improved as shown by motion and swelling, but no relief obtained until compensation adjusted.
1931 E.M.W.	M 34	2 yrs.	Fell off ladder, striking his back.	1	(1) 12' before (2) 10' after	102	Would not cooperate. Is better now, after settlement made.

nated lateral sclerosis were benefited, but it is not enough to draw any conclusion.

In the above cases we were able to follow so closely the various tests because of the aid derived from the Mark Finston Fund of St. John's Hospital. In this paper, I want to express my appreciation to Dr. I. A. Nelson and Sister M. Gratiana for their cooperation in the laboratory work; also Dr. L. H. Stuart and Sister M. Agneta and others in the x-ray department of St. John's Hospital for their untiring efforts in this work.

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* * *

METHODS

Sedimentation Test: Linzenmeier tubes used; 0.3 cc. of two per cent sodium nitrate, 0.7 cc. blood. We arbitrarily used the time —in minutes—to reach the eighteen mm. mark for both men and women.

Cell Volume: Wintrobe hematocrit with oxalated blood. A correction of 3.6 per cent was used in all calculations.

Erythrocyte Count: Chambers and pipettes checked with a Bureau of Standards assembly.

Hemoglobin: A Dare instrument was used by one technician who seemed to be able to get checks with this instrument against Newcomer, Sahli and Haskins-Osgood methods.

Viscosity: Hess Viscosimeter, large model. Temperature twenty degrees C.

Refractive Index: Abbe by Spencer. Temperature twenty degrees C. Serum allowed to separate twenty-four to thirty-six hours before being tested. All sera were checked culturally. Aseptic technic was used until the actual tests were done.

* * *

DISCUSSION

Dr. L. H. Stuart, Tulsa:

There has been quite a point of discussion since the work was done in the physical therapy department of the St. John's Hospital. I became considerably interested in it myself. The discussions that took place during the time when we were trying to find some method of preparing and knowing how to handle these cases. We finally arrived at the conclusion that the sedimentation rate was the one thing we got out of all laboratory work which would give you the best knowledge as to the procedure. It is the question that there is no definite thing that can be set down and followed in all cases. Other treatment cases are handled as individual cases, whether the temperature is to go to 102 or 105. This depends on the case and how to

		Symptoms	Remarks	No. Trtmt.	Max. Temp.	Remarks
1933 A.L.C.	F 34	Headache. Dizziness. Loss Memory.	From transfusion five years ago.	10	106 One 107	Marked improvement. Is well now.
1932 A.C.A.	M 43	C. N. S. Lues. Dementia.	Had malaria and large amount other treatment.	1	105	After first was so demented he was sent to Vinita.
1932-1933 K.T.	F 47	Tabes. Pain in legs and abdomen. Luetic aortitis.	Had 5 operations before tabes developed.	9	104.2	Would not cooperate. Only partial relief.
1933 E.E.C.	M 56	C. N. S. Lues.		2	106.5	Improved.
1933 R.G.	M 19	Paresis.	Hereditary. Late walking. Late eruption of teeth. Violent temper.	7	106	Marked improvement.

With these above cases of C N. S. lues there was a definite improvement in all but one.

handle the case from then on. Some go along in fairly routine manner where pretty much the same thing can be done for all, but they cannot all be handled that way. There is one thing that must be considered more than was mentioned in the paper—one of the untoward things that happens in these cases, heat exhaustion. When these patients get up to 100, 105, 106 and 107 and because they are over 103 or 104 something is going to happen. It happens in these individuals that are low in blood chloride. We found that we did have cases several years ago of heat exhaustion and we found that chloride of the blood had been considerably lower than normal. From then on we gave a small tablet of sodium chloride. From then on heat exhaustion diminished. Increase the chloride and also give these patients plenty of glucose, orange juice, anything with sugar in it. We do not know all there is to know about it. We got a little bit more acquainted with the process of how to handle these patients by taking on variants of those we thought would be benefitted and those who had been benefitted in the hands of other workers.

Dr. Ned R. Smith, Tulsa:

My experience in hyperpyrexia is limited. I had an experience with a grocer who in his work gave back change for a five dollar bill when given a one dollar bill. He could not find his way home. He was turned over to me as a joke to see what the new doctor knew. No case should be regarded as hopeless until treated. After being given hyperpyrexia followed by eighteen months of intensive therapy he went back to the grocery and has been there five years. In cases of neurosyphilis I have treated them early and late. There seems to be some reason to believe that the earlier you can get them the better results will be. But remember before hyperpyrexia was introduced, the batting average of paresis was the death warrant. Now we can tell people they have one chance in three they will get entirely well. From the standpoint of syphilis of the central nervous system hyperpyrexia by diathermy or malaria represents a distinct step forward. Do not tell the family if the patient has syphilis of the brain that they are hopeless; it is not true.

Infantile Eczema*

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The term infantile eczema is a broad term, and literally means an eczema in an infant. Some authors classify all the various types of eczema in a baby or child under this broad term. However, I feel that when we speak of infantile eczema we mean a certain specific variety of eczema that occurs in infants and presents a rather well defined characteristic type of eczema. The flush areas of the cheeks are the sites of predilection, with the forehead and ears and scalp often involved. The disease is usually a chronic persistent one, very rebellious to treatment, and relapses and recurrences are the rule rather than the exception. The infant may present vesicles, pustules, excoriations, bloody thickened crusts, and all the various stages, from an acute to a chronic type of eczema. They develop a "masked face" from constant scratching. Secondary infection is often present.

To successfully treat this condition, I feel that one must be somewhat of a dermatoallergist, which was an expression coined by Sulzberger in speaking of one who is both a dermatologist and an allergist. And I may add that a knowledge of infant feeding is also very important. So three classes of specialists see these cases, first usually the pediatrician, second the allergist, and lastly the dermatologist. And

*Read before the Section on Dermatology and Radiology, Annual Meeting, Oklahoma State Medical Association, Tulsa, May, 1937.

it is usually by a successful combination of the three that the best results are obtained.

The following conditions must be ruled out before one has the true atopic variety of infantile eczema. Dermatitis seborrhea may closely resemble infantile eczema, especially around the ears and scalp and face, but usually the history of greasy scales, and a tendency to persistence on the scalp, rather than the face, rules out this condition. Infectious eczema, this often follows an otitis media, impetigo contagiosa, or other staphlococci or streptococci conditions and may resemble to a striking degree true infantile eczema.

Fungus infection, such as tinea captis or corpus may at times resemble infantile eczema, however, the close inspection of the lesions and the finding of the fungus by culture or examination under the cover slip, will rule out this condition.

Contact dermatitis from contact with ivy plants, vines, certain dyes in baby bonnets, the use of too strong a soap on the infant, contact with perfumes, and cosmetics that the mother uses, may all produce a dermatitis that may require some study before finding the etiology. Needless to say that doing all the food tests in the world for a contact eczema due to soap, dye, or other external factors, and wrongly diagnosed as a food eczema, will result only in a waste of time and effort.

When the above conditions or types of eczema are eliminated, then and only then do I feel that you are qualified to call the case one of atopic or true infantile eczema.

The treatment of (atopic) infantile eczema is usually of a dual nature, that is, local soothing measures and that which is directed toward finding the etiology. I am not going to start a dispute as to the best method of food testing these infants, that is, the scratch method versus the intradermal tests. I shall state, however, that in my hands, I get less negatives and false positive tests by the intradermal method than by the scratch method. The three most important things to test for are milk, egg, and wheat, as these are the basis of most infant diets. I wish to state here now, that a genuine cow milk sensitive case cannot take boiled, acidified, or any form of canned cow's milk without keeping the eczema flared up. I advise putting these infants on a goat's milk formula. If fresh goat's milk is not available, there is now a canned goat's mik product that can be obtained. In breast fed infants, the child is usually egg sensitive, which is transmitted through the mother's milk. Eliminate eggs from the diet, being careful that the infant or mother does not get traces of egg in cake, bread, custard, pretzels, etc. Often milk sensitive cases are barley sensitive, and many of the soya bean milk preparations contain barley, and this may be the explanation of failure of soya bean milk substitutions to help the eczema.

Advantage of the passive transfer may be used in testing these cases. The whole blood is collected from the infant, serum separated and injected intradermally into a parent or relative, after first ascertaining his individual sensitivity. In twenty-four hours these transferred areas are tested with the different foods and the reactions obtained are identical with those of the infant's own skin. My good friend, Dr. W. C. Spain of New York, has an individual whom he pays a salary just to act as his human guinea pig for these passive transfer tests. After doing the skin tests, it is then necessary to evaluate the results and eliminate those foods that give the high degree of individual susceptibility.

The local treatment consists of using wet saline packs, boric acid wet dressings, to soften the crusts and clear up the secondary infection. Some of these cases are in a horrible condition from the constant trauma that the infant does to itself, and it may require several weeks to clear up this condition. The use of restraining cuffs are usually indicated and face masks of gauze may be used to prevent this self trauma.

Following these measures I prefer to use some mild tar preparation, such as naftalan five per cent in unguentum zinc oxide base, or crude coal tar one to five per cent in the same base, applied twice daily.

These atopic cases, if followed closely, all have an allergic background, and you can expect fifty to seventy-five per cent to continue to develop new sensitivities as they grow older, and more foods are added

to their diet; they progress to the neurodermatitis stage, and later pass into the asthmatic and hay fever category. Therefore it behooves one to carefully follow these cases from year to year, and to be cautious in regards to a too favorable prognosis. My good friend, Dr. Ralph Bowen, of Oklahoma City, in a personal communication just told me of two cases of icythiosis in infants that were referred to him with a diagnosis of infantile eczema, to treat and do skin tests on. So one must be sure of his diagnosis before being enthusiastic about tests and treatment.

The problem of infantile eczema is a vast one, and in the short time allotted to me, I do not feel that I can cover all phases of the condition, but rather try to bring out some of the errors of diagnosis, and mention some of the measures and factors in the control of this rebellious and complex problem of the allergic, pediatric and dermatological field.

The Treatment of Gonorrhea in the Male*

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CHAPTER VI

ACUTE POSTERIOR URETHRITIS

There is no more important detail in the care of acute gonococcal infection than the correct management of the case when the inflammatory condition involves the posterior urethra. The persistence of posterior gonococcal infection depends, not so much on the disease having progressed to this region, but on whether it has become firmly entrenched there. In the earlier stages of acute gonococcal infection of the posterior urethra, the mucosa, sub-mucosa and lining of the prostatic ducts are the structures that share in most of the inflammatory reaction; the glandular acini escaping disease to a marked extent. However, when inflammation is sufficient to produce signs and symptoms to a severe degree, it may reasonably be assumed that extension of infection has occurred to the deeper tissues of and around the posterior urethra.

Because of the above reasons, it is well for the physician to realize that despite a similarity in signs and symptoms "acute posterior urethritis" and "prostatitis" are not synonymous pathological entities. The prostate becomes infected to an indeterminable degree in many instances of acute posterior urethritis, but it probably escapes severe infection more often than we are accustomed to believe. It is not unusual to find relatively uninfected secretion as determined by microscopic examination following fairly severe acute posterior urethritis. This is a practical point in therapy, as one may by too early or too vigorous massage during or soon after an acute inflammation of the posterior urethra, convert a simple superficial infection to a more deep seated complicated one. Parenchymal infections of the prostate are disappointing in their response to treatment; requiring usually months to cure. Prostatic massage is never indicated within the first few weeks of a gonorrheal infection, and particularly contraindicated at all times when any acuteness of inflammation is present as manifested by symptoms on the part of the patient.

As is well known simple anterior urethritis is somewhat rare, posterior invasion occurs at some time or other. Providing one is watchful about the second or third week the doctor will notice some haziness in the second glass of urine voided. Frequently no symptoms whatever accompany this finding and not rarely it seems to be of an evanescent nature, lasting but a few days and then disappearing, fol-

*Third installment of the serial "Treatment of Gonorrhea in the Male." Previous installments appeared in the May and June issues of The Journal.

lowed by a clear second glass from then on during the course of the disease. Because of this, the physician should not be too pessimistic so far as an early cure is concerned. It may be repeated, however, that if the inflammation is severe, it will be observed that recovery is less prompt. Therefore, it is the function of the physician in his treatment of the disease to try and prevent these acute complications, and if they perchance occur, attempt to shorten their duration and mollify their acuteness.

What is the cause of acute inflammatory reactions of the postrior urethra? It may be stated, for the most part, that this complication can be prevented by a combination of intelligent treatment of the disease on the part of the doctor in conjunction with the faithful cooperation of the patient insofar as his personal conduct and hygiene are concerned. The physician who resorts to strong or frequent local treatments, forcible irrigations of the acutely inflamed urethra, or who passes sounds, catheters, etc., early in the course of gonorrhea will observe this complication many times in his practice. The administration of gonococcal vaccines in large doses as also prostatic massage within the first few days of posterior invasion is particularly dangerous to the development of this distressing condition. All local treatments should be stopped when there is even a suggestion of acute exacerbation of infection in the posterior urethra.

For these reasons the physician is ever alert, even bordering on suspicion in his daily care of the patient and especially so in the first few weeks of the disease. In order to keep the infectious process within bounds, he attempts to forestall acute inflammatory reactions of the posterior urethra early in their course. Because the first few days of posterior invasion of infection is particularly dangerous, he inquires of the patient at each visit whether he has had to urinate more frequently or whether urination is accompanied by more pain than usual.

What are the signs and symptoms that seem to presage these acute manifestations? Because the posterior urethra and trigone is the point of origin for the initiation of urination, inflammation in this region will produce what might be called bladder irritability as shown by a slight increase in frequency of urination. Terminal pain on urination is also a prominent symptom. This pain is produced by the contraction of the bladder neck at the end of urination. A bit of blood is often squeezed out of the engorged mucosa by this muscular contraction and shows at the end of urination. Various types of referred pains are often complained of; pain down to the tip of the penis, pain in the perineum and testicles, etc. With the complaint of any of these symptoms by a patient who is undergoing treatment for gonorrhea, it should be a "red flag" signal to the doctor for him to stop all local therapy and initiate measures to abort the process.

The treatment recommended is not so much what is done but what is not done. The patient is instructed to limit his activities, and if practical, to the extent of going to bed. Often the cessation of local injections for a few days will allow the process to abate even before it gets barely started. Hot sitz baths, hot rectal irrigations may be advised if found convenient. The use of an alkalizing agent in combination with some antispasmodic drug, usually tincture hyoscyamus or belladonna is very rational therapy, as the elimination of all painful bladder neck spasm undoubtedly tends to limit the inflammatory process.

Recently sulfanilamide has been added to our therapeutic armament for the treatment of gonorrhea and has been found in our experience almost a specific for the relief of signs and symptoms arising from this complication of the disease. It is given in doses of thirty to forty grains daily and invariably relieves the acute stranguary, giving the patient almost immediate comfort. Not infrequently, there will be observed a marked cessation of penile discharge even to the point of producing clear urine specimens. The immediate results obtained with this medication are so spectacular in the majority of instances that a false sense of security is engendered in both the patient and doctor. Experience has shown that often prostatic infections are still present; apparently being held in abeyance by the effect of the drug. If restrictions on conduct are raised and treat-

ment discontinued, the disease almost invariably relapses. It has also been found that sulfanilamide seems to lose its effect when administered over a period of time. For these reasons a limited experience with the drug has proven it extremely dangerous because of its "masking" effect on the clinical picture of the disease. If it be prescribed, it should be under strict supervision by the physician who should be thoroughly acquainted with its value and limitations.

Another therapeutic measure not ordinarily available to the average physician for the relief of this condition is the production of artificial fever. Increasing the temperature of the body for a short time by means of diathermy has proven uniformly efficient in giving relief from bladder irritation and occasionally produces a marked impetus toward cure of the disease. For various reasons, namely, the average patient's intolerance toward the treatment, the cost of the procedure and other factors, has given us limited experience with this method for the radical cure of gonorrhea. However, as a palliative measure in hyperacute infections, and especially in this particular complication of the disease, it has been unusually effective. The temperature produced need not be excessive, usually not over 104° F.

Before again initiating local therapy, the patient should have complete bladder comfort and even then the first few injections should be limited to the anterior urethra. Later, one may cautiously allow the medicine to flow past the sphincter and into the posterior urethra, watching carefully for bad effects produced by the first few treatments. If there is a tendency toward activation of the previous symptoms, the local injections are immediately stopped.

When the physician has found no serious effects are produced by the posterior instillations, he may with caution begin massage of the prostate. If little pus is present as determined by a microscopic examination of the expressed prostatic secretion, the continuation of massage is a doubtful form of therapy especially in the first month of infection. It will be found better to observe the progress of the infection under simple urethral treatment. However, with the development of posterior involvement, severely acute or prolonged in character, the prostate will be found to be more or less involved and will demand some future massaging in order to obtain a cure. Guidance in this direction may be obtained by carefully following the clinical progress of the case as well as by repeated examinations of the prostatic secretion.

* * *

CHAPTER VII

CHRONIC PROSTATITIS—DIAGNOSIS

Long standing gonococcal infection practically always means a foci located within the prostate gland. Fortunately the urethral mucosa shows quick improvement providing no infection exists in the glandular structures normally draining to it. If infection is present in the prostate or the peri-urethral glands, the urethra reflects this by an inflammatory reaction of its mucosa as shown by the continued presence of pus, mucous or shreds in the urine.

Chronic prostatitis may be due to other bacterial factors aside from gonorrhea; namely, the staphylococcus, streptococcus, colon bacillus. These non-specific infections of the prostate may be complicated by gonococcal infections. Clinical experience has shown that a gonococcal infection of the prostate may prepare the gland, so to speak, for the invasion and entrenchment of these secondary organisms that originate from other foci and the resulting non-specific infection may keep signs and symptoms active for a long period of time even when the gonococcus itself has disappeared. Quite often these so-called secondary invaders prove extremely rebellious to the ordinary forms of therapy. Their foci must necessarily be removed before a cure can be obtained. The removal of a dead, infected tooth may therefore be a more rational therapeutic procedure than any particular type of urethral injection.

As far as the actual treatment of chronic prostatitis is concerned, the principal followed which holds good as in other infectious conditions is: "good drainage." When drainage is inadequate, infections tend to persist no matter how or what local treatment is rendered. Good drainage as it pertains to prostatic infection means an unhindered pathway from the base of the in-

fected glandular acini to the urethral meatus. Often in the case of long standing infection, the prostatic ducts in the floor of the posterior urethra are obstructed by secondary formations of a cystic or granulomatous character that act as a barrier to the free passage of infected material from the gland. These extraneous formations are merely the end result of tissue stimulation from the presence of an irritating discharge on the urethral mucosa over a long period of time. They must of necessity be removed before progress can be made in the case.

The physician must also search for obstructions along the urethral channel in the form of large or small caliber strictures. The stasis and congestion induced in the posterior urethra by a stricture acts as a potent factor for the chronicity of infection. Small urethral meati fall in the same category as strictures and must be enlarged as an important preliminary treatment. Good judgment must be used in this respect, as there is a tendency to apply meatotomy too frequently even to those of narrow but quite normal size. A meatus of more than twenty French size is in no need of enlargement. One should be mindful there is normally a narrowing of the urethra, as it emerges from the glands, physiologically for the purpose of giving force and direction to the stream. A too large meatus is a handicap to the individual so far as satisfactory voiding is concerned.

Occasionally, but not often, we find actual suppurative cavities beneath the posterior urethral mucosa which drain into the urethra by small calibered openings. These are aptly called "bottle neck" pus cavities, and represent the aftermath of abscess formation resultant from the blocking of a prostatic duct. They may occasionally have to be enlarged cystoscopically in order to provide adequate drainage.

The diagnosis of chronic prostatis rests not so much on the palpation per rectum of the gland, but more on a careful microscopic examination of the expressed secretion for the presence of pus. Many infected prostates, if one had only palpation to go on, present no evidence of disease, but when the secretion is examined microscopically, gross amounts of pus are seen. However, each patient should be carefully examined by means of a finger inserted in the rectum in order to note any physical abnormalities present. These may be grouped under four headings: size, consistency, contour and mobility.

The normal prostate is about the size of a walnut and presents little hindrance to the examining finger as it is inserted in the anus. A poorly draining gland may be one or more times larger. Oftentimes even severely infected glands are apparently normal size. Enlargement of the gland is definite where there is a senile prostatic hypertrophy.

The consistency of the normal gland is somewhat firm and resistant to the ball of the finger, giving one a sensation of slight "spring" to the tissues. In chronic infections, a boggy edematous sensation may be elicited. Often, areas of softening surrounded by rather firm infiltration may be discovered and are representative of old prostatic abscesses. The fact that a gland is of a firm or soft consistency does not, however, indicate the amount of infection. Severe infections may accompany even sclerotic prostates.

The contour of the normal prostate is smooth and regular with the median interlobar fissure apparent to the examining finger. Obliteration of this fissure and nodulation of the gland is often observed in instances of long standing infection. When the inflammatory process has extended to the periprostatic tissues, the similarity to carcinoma of the prostate is striking. Induration, nodulation and immobility of the glands are dominant physical characteristics of prostatic carcinoma. A marked nodulation occuring in a young young adult also suggests a tuberculous process and a careful examination of the remainder of the genitalia should be made with this diagnosis in view.

Comparatively little secretion can be massaged from the ordinary gland. However, the amount of secretion obtained is no criteria whatever as to the extent and amount of infection. In a poorly draining prostate where there is an accumulation of secretion, one may obtain a rather large amount of material; but in a gland where the drainage is somewhat adequate, one

may find a "dry tap" so to speak, even when infection is grossly present.

Pain is an indefinite manifestation of prostatic disease. Certainly we observe pain on palpation of the acutely inflamed prostate and if an abscess be present, the pain is intense. Ordinarily, the careful rectal palpation of the gland should not produce much discomfort to the patient.

The physician who treats chronic prostatitis should employ the microscope not only for a diagnosis, but as a means of following the infection in order to observe its response toward treatment. The freshly expressed secretion obtained by massage is allowed to fall on a clean slide in the form of a discrete drop. Upon this drop is placed a cover glass and the microscopic examination should be made by means of the high dry lens. Pus may be observed from the presence of nucleated cells, care being exercised to differentiate them from the normal elements of prostatic fluid; lecithin bodies and corpora amylacea. Pus may be found as discrete cells or arranged in clumps. The latter finding has been stated to be found in poorly draining glands. One should count the number of cells to each high power field in an attempt to evaluate the amount of infection. An arbitrary method of grading the severity of the infection is by calling up to ten cells per high power field Grade I; ten to twenty cells, Grade II; twenty to forty cells, Grade III; and over forty cells per hight power field, Grade IV. This grading has proved an invaluable system for the written records.

A stained slide should be made by means of the Gram technic and the type of organism, thereby, determined by microscopic examination. Extracellular Gram negative diplococci is suspicious evidence of gonorrhea; intracellular Gram negative diplococci are pathognomonic. Streptococci are especially significant as they suggest a draining foci elsewhere.

The urine is examined by means of the two glass tests in order to note to what extent the second glass is soiled. When sufficient prostatic secretion by massage cannot be obtained, a convenient method is to collect the urine voided following massage, submitting it to centrifuge and then examining the specimen. Oftentimes the amount of secretion is insufficient to drain spontaneously from the urethra, and this procedure has proven invaluable in these instances in order to provide a satisfactory examination. The presence of turbidity in the second glass of urine passed before massage is indicative of posterior involvement, but it must be remembered also that bladder and upper tract infections will also present this finding. Occasionally, in long standing infections, one will find clear urine in the second glass. This is due to the fact that there is little or no inflammatory reaction of the urethral mucosa.

The symptoms arising from an infected prostate gland depend somewhat on whether drainage is adequate as well as the amount of acuteness of the inflammatory process. The urinary symptoms are in a great measure in proportion to the amount of concomitant posterior urethritis and trigonitis. Frequency, urgency and bladder irritability are specific complaints from disease of these structures. When the posterior urethritis is improved by treatment, these symptoms tend to disappear. Pain may be a prominent symptom of prostatitis with referred distress to the tip of the penis, testicles and perineum, but more often it takes the form of an indefinite backache low in the sacral region.

Chronic prostatitis may occasionally produce sexual disturbances. This may take the form of premature ejaculation which is due to a hyper-irritability of the sexual centers from the congestion around the veramontanum. This symptom, if allowed to persist any length of time, will lead to complete impotency of the individual.

Last but not least, toxic manifestations in the form of arthritis, neuritis, myalgia, iritis, etc., due to the presence of toxin originating from bacteria within the infected gland are extremely common. The prostate in such disorders should be checked thoroughly and repeatedly for the presence of infection as manifested by pus in its expressed secretion.

(To be continued.)

THE JOURNAL
OF THE
Oklahoma State Medical Association

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DR. L. S. WILLOUR.....Editor-in-Chief
McAlester, Oklahoma

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McAlester, Oklahoma

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Articles sent this Journal for publication and all those read at the annual meetings of the State Association are the sole property of this Journal. The Journal relies on each individual contributor's strict adherence to this well-known rule of medical journalism. In the event an article sent this Journal for publication is published before appearance in The Journal the manuscript will be returned to the writer.

Failure to receive The Journal should call for immediate notification of the Editor, McAlester Clinic, McAlester, Oklahoma.

Local news of possible interest to the medical profession, notes on removals, changes of addresses, births, deaths and weddings will be gratefully received.

Advertising of articles, drugs or compounds unapproved by the Council on Pharmacy of the A. M. A., will not be accepted.

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EDITORIAL

MEDICAL AND ECONOMIC PROBLEMS

Never before have I heard our economic problems so concisely stated as in the President's Address before the House of Delegates of the *American Medical Association* at Atlantic City, and while there was liberal discussion and many ideas presented the solution is far from complete.

The one problem that is never approached by any of the foundations, organizations and individuals who would seek to control the practice of medicine, is the care of the poor, those who are able to pay nothing. All of the schemes put forward seem to deal with those of moderate income, leaving the care of the indigent, as always, in the hands of the physicians, and we have always accepted this responsibility as a part of our obligation to humanity. The various insurance features proposed do not touch this class as they have no money to pay premiums; the cooperative hospital idea does not take these people into consideration as they have no money to buy stock and pay assessments; the counties as an organization do not care for them as the assessment for this purpose is insufficient, consequently they are still and always the doctor's problem and he has solved it by giving his time and talents freely for lo these many years.

I am going to copy here some of the questions as promulgated by Dr. Heyd in order that all our membership may give these matters their consideration and help to solve these very perplexing problems:

"1. That every practitioner believes that the proved indigent is entitled to medical services free of all charges and that the cost of this service should be paid by taxes levied on the general population.

2. The principle that indigence is a local problem and should be handled in the area in which it arises.

3. The extension of medical services to the indigents in their homes and the doctors' offices with remuneration to the physicians on a capitation basis under the direction of the county medical society, all free services to indigents to be rendered by the physicians or out-patient department of the hospital within the geographic or regional zone in which the indigent resides.

4. The certification of indigents, fairly, sincerely, honestly and sympathetically by the application of standards of eligibility, by central bureaus under the department of welfare, with proper representation from the county medical society. It should not be the function of the out-patient department to pass on the validity of indigents, nor should they admit for free services those that are not in truth indigents.

5. A medical census of the indigents, to learn what our load is and how to take care of it. There should be de-

vised a positive means of identification to prevent padding of the lists.

6. The payment of a fair remuneration to all physicians working in outpatient departments or giving medical services to the indigents in their homes. This remuneration must not be so low as to bring with it an inferior medical practice and the palliative bottle of medicine. It should not be too high. A fair average can be worked out and still maintain the best qualities of scientific medicine. In the planning of the details of this service it might seem wise to set up a special subdivision of activity under the auspices of the county medical society.
7. The unequivocal opposition to all forms of compulsory health insurance. Insurance schemes tend to relieve the individual of his own responsibility and to increase the prolongation of illness. In short, under an insurance scheme it is profitable for a person to be sick.
8. What are we to do with "catastrophic illness?" By catastrophic illness I mean the emergency that is expensive and for which no ordinary family can budget. Its emergency character, its expense and the necessity for immediate help renders it an important item in the conception of any medical service. It probably represents from eight to ten per cent of acute illness at any one time.

It seems to me that these are not unattainable objectives but can be brought into being by mutual consideration of the problems between the various parties interested and organized medicine."

It would appear after careful consideration of the foregoing propositions that it would be completely unnecessary to upset the present basis of the practice of medicine in order to meet all ordinary demands for medical service. The big problem, of course, is the catastrophic illness that presents itself in only about eight to ten per cent of the acute illnesses at any one time, and with hospital insurance as recommended by your Council and the House of Delegates at the Annual Meeting in Tulsa, it would seem that even this could be well met by dividing the doctor's fee into monthly payments, extending over sufficient length of time so that they may not cause any very serious inconvenience.

We must always keep in mind the very definite difference between hospital insurance and the Cooperative Hospital which peddles medical and surgical service as well as hopsitalization, and it will always be necessary that the members of the medical profession, working in cooperative hospitals, shall meet the same professional and economical requirements as every other physician and surgeon.

Give all of these propositions your careful consideration and then give Organized Medicine in Oklahoma the benefit of any constructive suggestions that you may have to make.

REPORT OF THE A. M. A. MEETING IN ATLANTIC CITY

The eighty-eighth annual session of the American Medical Association will go down in history as one of the most important medical meetings that has ever been held anywhere and the registration, 9,746, as the largest number of physicians who attended any medical meeting in the history of the world. The large number in attendance shows that the medical profession is interested in organized medicine and is willing and ambitious to spend their time and money for the benefit of the profession and to prevent us from being forced into state medicine.

The House of Delegates was called to order at ten o'clock on Monday morning and after attending to the regular routine, the House went into executive session at which time the advisability of having the Honorable J. Hamilton Lewis, U. S. Senator for Illinois, meet with us and discuss medical legislation was taken up and the secretary was instructed to wire Senator Lewis to come to Atlantic City and appear before us at the executive session on Tuesday afternoon.

After the adjournment of the House of Delegates at 2:30 p. m., Monday, many of the members went to Seaview golf course where the annual tournament of the American Golfing Association was held; after which an excellent banquet was served and the prizes were awarded to the winners in the different classes. At the same hour, the New Jersey State Medical Society entertained all of the officers with a floor show and banquet in the Hotel Ambassador which lasted for several hours and was thoroughly enjoyed.

Senator Lewis's address was printed in the Journal in full and if you have not already done so, your representatives suggest that you read it carefully and you will see that we have a friend on the medical legislative committee in the Senate who will cooperate with our legislative committee and if the plan works out along the lines he suggested, the medical profession will still be a profession and not hirelings.

Considerable furore was caused by the resolu-

tion on the Development of a National Health program introduced by the New York delegation which was placed in the hands of a reference committee who spent twenty-four hours studying and revising same and finally after removing the objectionable features, returned it to the House where it was o. k.'d along the lines mentioned by Senator Lewis, which in a nutshell is as follows: all indigents to receive medical attention from the physician of their choice and the physician to receive a moderate nemuneration for his services which is to be paid by the government, but anyone who poses as an indigent and is not, will be guilty of fraud; and the physician who tries to collect from the government for someone who is not an indigent is also guilty of fraud.

The Reference Committees were appointed by the Speaker and Oklahoma was honored by having a representative on the Committee on Reports on the Board of Trustees and Secretary.

Dr. N. B. Van Etten, Speaker of the House, gave his annual address and issued service medals to those who have been delegates for twenty years or more, who were all introduced to the House, as well as the members who were in the House this year for the first time were also introduced. Dr. Thomas S. Cullen of Maryland attended his first session of the House of Delegates in 1902, and is the dean in point of attendance.

The Speaker's address was followed by the address of President Charles Gordon Heyd, who stressed the number of major problems to be solved by the profession. The most important of which is medical indigence, a condition untouched and unanswered in all systems of compulsory health insurance and should receive serious consideration. Dr. Heyd pointed out eleven different facts pertaining to medical indigence and we suggest to you that you read and study his address, which appears on page 2130 of the June 19th issue of the American Medical Association Journal, and you will see that Dr. Heyd has given this serious consideration and is one of the outstanding medical minds of the country and has done a remarkable job the past year, especially as he was put into office without having a year's preparation which is the custom, but when Dr. Tate Mason of Seattle died, Dr. Heyd was made President by the Board of Trustees and has made one of the most remarkable presidents we have ever had.

The President-Elect, Dr. J. H. J. Upham, then addressed the House of Delegates and he also has been a very busy man, traveling over a large portion of the United States and appearing at numerous medical meetings. Like Dr. Heyd, his aim and ambition has been to aid and benefit the medical profession and in his teaching capacity, he has done a great deal toward educating the public in public health meetings.

Colonel W. W. Evans, representative of the American Bar Association, was introduced by the Speaker and he talked to us for about ten minutes on subjects of interest to the medical profession as well as the legal profession and it seems that the Bar Association has the same things to contend with as attempts are constantly being made toward socialization of the American Bar Association; but with the professions standing solidly together, socialized medicine and socialized law will never become a fact."

The committee to propose amendments to by-laws providing for the fitting recognition to fellows rendering distinguished service in science and art of medicine proposed some amendments which will allow medical men to receive credit for distinguished services in science and medicine.

The newspapers in reporting the Atlantic City session laid great stress on the fact that the Association had approved birth control and the Association did go far enough to suggest that contraceptives should be used only upon the advice and under the direction of licensed doctors of medicine.

A great many resolutions were introduced, among them being the ones presented at our State Meeting in Tulsa and they were referred to the reference committee on executive sessions.

The committee on re-apportionment of Delegates reported on Tuesday morning and brought in a recommendation that the states be allowed one delegate for each 825 members instead of the past basis of 775 members and their report was adopted, as the By-Laws require that the number of Delegates shall not exceed 175. This re-apportionment allows Massachusetts and the Philippine Islands to each gain one delegate; New York to gain two and Missouri and Oklahoma to each lose one. So it is up to the profession in Oklahoma to increase our membership if we wish to continue having three representatives. It should be easy to increase our membership to 1651, which would call for three delegates in the future as in the past. There are at least two hundred men in our state who are not members of the state society but should be, and if everyone will do his part we will have the required number at the time of our Muskogee meeting next May.

A telegram from the American Dental Association extended best wishes for a meeting of marked distinction and deep significance for the future of medicine and the health of our people was received and formal acknowledgment was wired them.

A resolution was introduced by Dr. Vest, West Virginia, relative to the selection of meeting places where the needs of the medical profession could be taken care of; the gist of this resolution was, that the locations for the annual meetings should be made three years in advance and when the location for the 1938 meeting came up it was unanimously decided to go to San Francisco. At the same time it was announced that Cleveland had extended an invitation for 1939, and Dr. Conaway of Atlantic City extended an invitation for 1939; but no doubt, Cleveland will be the meeting place in 1939, although the 1939 meeting place will not be definitely decided until next year's sessions at which time the locations will be selected for 1939, 1940 and 1941.

Thursday afternoon all the committees who had not previously reported did so and the committees discharged. The election of officers followed, the following being elected: Dr. Irvin Abell, Louisville, Kentucky, was elected President-Elect; Dr. Junius B. Harris, Sacramento, California, Vice-President; Dr. Olin West was re-elected Secretary as usual by acclamation; Dr. Herman Kretschmer of Chicago was re-elected Treasurer; Dr. Nathan B. Van Etten of New York was re-elected Speaker; Dr. H. H. Shoulders, Vice-Speaker. Dr. Arthur W. Booth was re-elected to succeed himself as Trustee for a term of five years and Dr. R. L. Sensenich of Indiana was elected to succeed Dr. Sleyster of Wisconsin whose second term expired.

The medical fraternity of Atlantic City put forth every effort to make the meeting a success and there never has been more harmonious action in any city than there was in Atlantic City and we heard no complaints and nothing but words

of praise. There is no doubt but what Atlantic City is better qualified to handle the American Medical Association than any other city in the United States.

Signed:

Horace Reed,
McLain Rogers,
W. Albert Cook.

FOR YOUR INFORMATION

Operators of private laboratories, private sanitariums, and physicians employing one or more were advised today by Commissioner of Internal Revenue Guy T. Helvering to make immediate tax returns as required under the provisions of Titles VIII and IX of the Social Security Act to avoid further payment of drastic penalties which are now accruing.

Commissioner Helvering pointed out that every person employed in such work came under the provisions of Title VIII, which imposes an income tax on the wages of every taxable individual and an excise tax on the pay roll of every employer of one or more. This tax is payable monthly at the office of the Collector of Internal Revenue. The present rate for employer and employee alike is one per cent of the the taxable wages paid and received.

Under Title IX of the Act, employers of eight or more persons must pay an excise tax on their annual pay roll. This tax went into effect on January 1, 1936, and tax payments were due from the employers, and the employers alone, at the office of the Collector of Internal Revenue on the first of this year. This tax is payable annually, although the employer may elect to pay it in regular quarterly installments.

The employer is held responsible for the collection of his employee's tax under Title VIII, the Commissioner explained, and is required to collect it when the wages are paid the employee, whether it be weekly or semi-monthly. Once the employer makes the one per cent deduction from the employee's pay, he becomes the custodian of Federal funds and must account for them to the Bureau of Internal Revenue.

This is done, Mr. Helvering said, when the employer makes out Treasury form SS-1, which, accompanied by the employee-employer tax, is filed during the month directly following the month in which the taxes were collected. All tax payments must be made at the office of the Collector of Internal Revenue in the district in which the employer's place of business is located.

Penalties for delinquencnes are levied against the employer, not the employee, the Commissioner pointed out, and range from five per cent to twenty-five per cent of the tax due, depending on the period of delinquency. Criminal action may be taken against those who willfully refuse to pay their taxes.

The employers of one or more are also required to file Treasury forms SS-2 and SS-2a. Both are informational forms and must be filed at Collectors' offices not later than next July 31, covering the first six months of the year. After that they are to be filed at regular quarterly intervals. Form SS-2 will show all the taxable wages paid to all employees and SS-2a the taxable wages paid each employee.

Participation in a state unemployment compensation fund, approved by the Social Security Board, does not exempt employers from the excise tax under Title IX, Commissioner Helvering said. Nor does the fact that there is no state unemployment compensation fund relieve the employer of his Federal tax payments. In those states where an unemployment compensation fund has been approved, deductions up to ninety per cent of the Federal tax are allowed the employer who has already paid his state tax. These deductions are not allowed unless the state tax has been paid.

This tax is due in full from all employers in states having no approved fund. The rate for 1936 was one per cent of the total annual pay roll containing eight or more employees, and for 1937 it is two per cent. The rate increases to three per cent in 1938 when it reaches its maximum. The annual returns are made on Treasury form 940.

An employer who employs eight or more persons on each of twenty calendar days during a calendar year, each day being in a different calendar week, is liable to the tax. The same persons do not have to be employed during that period, nor do the hours of employment have to be the same.

ADDITIONS TO 1937 ROSTER

The following have become members of the State Association since the compilation of the Roster which appeared in the June Journal:

Alfalfa County

CHURCH, R. M. ..... Stilwell

Haskell County

CARSON, W. M. ..... Keota
HILL, A. T. ..... Stigler
RUNLEY, J. C. ..... Stigler
TURNER, T. B. ..... Stigler
WILLIAMS, N. K. ..... McCurtain

Jackson County

BROWN, RODERICK FRANKLIN ..... Altus

Kay County

GARDNER, C. C. ..... Ponca City

Muskogee County

GRAVES, J. R. ..... Boynton

Oklahoma County

COLLOPY, PAUL J., 127 N. W. 21st, Oklahoma City
SALOMON, A. L. ....1200 N. Walker, Oklahoma City

Ottawa County

PURSLEY, TURNER ..... Picher

Pittsburg County

BRIGHT, J. B. ..... Kiowa

Woods County

WARRICK, JOSEPH D. ..... Kiowa, Kansas

Editorial Notes—Personal and General

DR. CLAUDE B. WATERS, Marietta, is spending three months in Vienna where he will take post-graduate work at the University of Vienna. He will return in the fall to resume his practice in Marietta.

DR. IMOGENE BUTTS MAYFIELD, Holdenville, sailed in June for a two months medical lecture tour of the European countries.

DR. JOHN F. PARK and family of McAlester spent the latter part of June and two weeks of July in Galveston.

DR. HOWARD B. SHORBE, Oklahoma City, an-

nounces his association with The Reconstruction Hospital and McBride Clinic, 717 North Robinson, in the practice of orthopedic surgery and treatment of fractures.

DR. M. C. McNEW, Ada, is taking post-graduate work at the Manhattan Eye Clinic, New York City.

DR. L. P. HETHERINGTON, surgeon in charge of the Pawnee-Ponca Hospital, Pawnee, has purchased the office and equipment of the late Dr. J. C. Jacobs, 304 First National Bank Building, Miami, Oklahoma, and will enter private practice at that location on or about August 1st.

DR. C. E. NORTHCUTT of Nieman-Northcutt Clinic, Ponca City, gave an interesting discussion on international medical relations and also a discussion of the use of contraceptives to the Pawnee County Medical Society on June 10th.

DR. L. S. WILLOUR AND DR. L. C. KUYRKENDALL, McAlester, Addressed the Le Flore County Medical Society Thursday, July 8th, at Poteau.

News of the County Medical Societies

HUGHES, POTTAWATOMIE, SEMINOLE and PONTOTOC COUNTY MEDICAL SOCIETIES held a joint meeting in Shawnee June 19, 6:30 p. m., at the Aldridge Hotel, where the following program was presented:

"Relation of Liberal Arts and the Practice of Medicine" by Dr. A. Linscheid, President of the State Normal School at Ada.

"Right Lower Abdominal Pain" by Drs. R. E. Cowling and W. F. Dean, Ada.

SOUTHEASTERN Oklahoma Medical Association held their semi-annual meeting at McAlester June 24th, with the following program:

Scientific Program—

"The More Common Cardiac Conditions; Their Early Recognition and Management"—Dr. W. L. Shippey, Poteau, Okla.

Luncheon—Aldridge Hotel, 12:15 p. m.

Program resumed at 1:30 p. m.

Invocation—Dr. R. K. Pemberton, McAlester.

Welcome Address—Dr. L. C. Kuyrkendall, McAlester.

Response—Dr. J. S. Fulton, Atoka.

"Tuberculosis, A Family Disease"—Dr. F. P. Baker, Talihina.

Symptoms, Diagnosis and Treatment of Acute Perforated Gastric Ulcer"—Dr. Keiller Haynie, Durant.

"Hyperthyroidism with Analysis of Cases"—Dr. L. C. Veazey, Ardmore.

"The Management of Diabetes Mellitus"—Dr. Alfred Baker, Durant.

The Annual Election of Officers.

The next meeting will be held in McAlester in conjunction with the Regional Fracture Committee of the American College of Surgeons, in December.

Dr. J. L. Shuler, Durant, was elected president; Dr. W. Keiller Haynie, Durant, vice-president; and Dr. John A Haynie, Durant, relected secretary.

Seventh Cruise Congress of Pan-American Medical Association in January

The Pan-American Medical Association takes great pleasure in announcing that the "Queen of Bermuda" has been chartered for the seventh Cruise-Congress. As you know, we had this boat for the last cruise and it proved to be most ideal for our purposes. Following is the itinerary:

Leave New York	January 15th
Arrive Havana	January 18th
(Four and one-half days and five nights in Havana.)	
Leave Havana	January 23rd
Arrive Port au Prince	January 24th
Leave Port au Prince	January 24th
Arrive Trujillo City (Santo Domingo)	January 26th
Leave Trujillo City (Santa Domingo	January 26th
Arrive San Juan (Puerto Rico)	January 27th
Leave San Juan (Puerto Rico)	January 27th
Arrive New York	January 31st

The main part of the Congress will be held in Havana. There will be three days of scientific sessions with operative clinics. These will be divided into sections for the various specialties. This year we have four new sections: tuberculosis, gastro-enterology, dentistry, and industrial medicine. Meetings will be arranged with our medical colleagues at the other ports of call.

The Hotel Savoy-Plaza in New York and the National Hotel in Havana will be our official hotels.

Travelways, Inc., have chartered the "Queen of Bermuda" on behalf of our Association and will act as our official travel agents. As this Congress promises to be the most successful ever held by the Association, it would be highly advisable to book reservations as early as possible with Travelways, Inc., who will make every effort to satisfy the requirements of the members of the Congress. Applications for reservations should be addresssed to the Pan-American Medical Association at 745 Fifth Avenue, New York City.

The program committee would be pleased to receive applications for the presentation of scientific contributions.

OBITUARIES

DOCTOR JACOB M. STOOKSBURY

Dr. Jacob M. Stooksbury, who was born at Forkvale, in the eastern part of Tennessee on June 9, 1869, died June 24, 1937, at sixty-eight years of age. Dr. Stooksbury enjoyed comfortable although not vigorous health until a few days before his death. The cause of death was called cerebral vascular accident, perhaps hemorrhage.

Dr. Stooksbury was a graduate of Chattanooga College in 1897. He was a member of the county, state and American Medical Association.

NOTICE OF DEATHS

(Insufficient data for obituary.)

Dr. G. M. Clifton, Norman, June 22, 1937.

ABSTRACTS : REVIEWS : COMMENTS *and* CORRESPONDENCE

SURGERY AND GYNECOLOGY

Abstracts, Reviews and Comments from LeRoy Long Clinic
714 Medical Arts Building, Oklahoma City

Latent Form of Chronic Appendicitis with Bands, and with Associated Nervous and Arterial Syndromes (L'Appendicite Chronique Avec Brides A Forme Latente. Syndromes Nerveux et Arteriels Associes.) By Jean LeSage, Montreal. L'Union Medicale du Canada, June, 1937, Page 601.

The author of the article is a gastro-enterologist. In it there is an attempt to explain some rather unusual symptoms on the basis of a chronic appendicitis. In the beginning of the article the statement is made that aside from recurrent acute appendicitis there may be a relapsing appendicitis, or a chronic appendicitis following an acute attack. This is followed by the statement: "More interesting because more complex and difficult of interpretation, chronic appendicitis from the outset presents itself as a syndrome which evolves 'independently of any previous acute appendicitis'."

Apparently, the author believes that a latent chronic appendicitis might explain some remarkably unusual manifestations illustrated by the following case report:

A man fifty-eight years of age, hard worker (occupation not stated), excessive eater ("fort mangeur"), inveterate smoker ("grand fumeur de cigares"), presented himself October 1, 1936, complaining of attacks of weakness ("crises d'asthenie") over a period of about ten years, the attacks being accompanied by somnolence, amnesia, aerophagia, eructations of gas, and distention of the abdomen. The attacks were more frequent and more pronounced after taking food. In addition, there was complaint of vertigo, sweating and, at one time, falling with biting of the tongue ("une chute par terre avec morsure de la langue"), without incontinence of urine and without aura.

After repeated hesitations the patient recalled that at about the age of fifteen years he had had a series of "acute indigestions" with colics.

There was pallor, drooping features, slow speech. Pulse 65. Blood pressure 130/70.

Abdomen distended generally, with predominence in the pre-hepatic region where the liver dullness was masked. There was a small umbilical hernia. There was no distinct point of tenderness.

Management based upon the hypothesis that there was an intestinal stasis, probably associated with an anomaly of the colon, brought but little improvement. At this point there was a barium enema with x-ray examination. Nothing striking was observed except in the cecal region, this region being elbowed ("coudee") toward the median line, and the appendix, observed twenty-four hours after the barium enema, in a rectilinear position, and apparently fixed at its two extremities.

X-ray studies of the stomach, oesophagus, duodenum, gall bladder were negative. The conclusion was that there was great probability of a perityphilitis with the appendix in a fixed retrocecal position.

The patient was operated upon by Dr. Lefrancois under ether anesthesia December 22, 1936. This is the note dictated by the surgeon: "Subject very fat. The bottom of the cecum adherent to the external wall of abdomen by a band which was sectioned. Appendix retrocecal, adherent (former attack almost certain, notwithstanding the difficulty of the patient in recalling it). Liberation very laborious. Sectioned without inverting the stump." The pathological diagnosis was productive appendicitis ("appendicite productive").

On January 31, 1937, the patient complained of weakness, somnolence after meals, numbness and paresthesia of the legs. Nothwithstanding these complaints the author says that there was great amelioration of the general condition. On April 21, 1937, he was seen again after having been submitted to "an hepatic cure." The author says that he was much relieved, but still had attacks of asthenia when he fell into the old sin of using tobacco ("s'il retombe dans le vieux peche du tabagisme").

COMMENTS: Following the report there is a long historical review of the subject of chronic appendicitis, many authors being quoted, but I shall not go into that. After I read the article with a good deal of care I had the distinct conviction that the author had not established the pathological situation that he was apparently trying to establish. Granting that there is a pathological entity that might be properly denominated "chronic appendicitis," the disease, in the experience of the average surgeon, is not manifested by asthenia, sweating and falling to the ground with biting of the tongue. In such a case, especially at the age of fifty-eight, it is not only a questionable, but, in my judgment, a dangerous procedure to subject a patient to an abdominal exploration without a more definite and a more solid basis.

LeRoy Long.

P-Carbamino Phenyl Arsonic Acid in the Treatment of Trichomonas Vaginalis Vaginitis. By Charles Drabkin, St. Louis, Mo. The American Journal of Obstetrics and Gynecology, May, 1937, Page 846.

He reports twenty-one cases of trichomonas vaginalis vaginitis treated with carbarsone. There were two recurrences which he thought were probably re-infections from the husband. The medication was given in a rather elaborate manner. During the first week of treatment a suppository containing two grains of carbarsone was used night and morning in the rectum. During the first week five grains of carbarsone with five grains of sodium bicarbonate were injected into the vagina each night and a suppository was also introduced each morning. During the second week the morning rectal suppository was omitted and the rectal therapy was limited to one suppository each night. During the second week the vaginal therapy was

continued as above. During the third week all carbarsone was discontinued in the morning and at that time the patient took a douche containing one tablespoonful of vinegar to the pint of lukewarm water. During the third week a carbarsone suppository was inserted into the vagina every night and into the rectum every other night.

During menstruation the morning acid douche and night vaginal suppository were continued.

The author considers the rectal treatment and the treatments during menstruation as of considerable importance.

He emphasizes the fact that the patient can carry out this treatment herself, avoiding all forms of office treatment which are painful and which are frequently not systematically followed.

COMMENTS

For the past three and one-half to four years I have treated all patients with trichomonas vaginalis vaginitis with carbarsone vaginal suppositories, feeling that the parasiticidal action of the contained arsenic was of prime importance in eradicating the infestation. My experience with this drug has been a most happy one. I have used it in several hundred patients. One may expect symptomatic relief in practically all instances within four to five days.

Its application in my hands has been much more simply carried out than the routine outlined in the above article. I have prescribed twelve vaginal suppositories to be used one each night, and inserted deep into the vagina. Patients have been instructed to take a douche in the evening prior to insertion as desired only. The rectum has not been treated with the drug. The patients have not employed carbarsone during menstruation.

Because of an occasional recurrence, during the past two years, floraquin tablets (Searle Co.) have been used following the carbarsone medication. These have been employed by inserting one tablet into the vagina every night for ten to twelve nights after completion of carbarsone and thereafter one every other night or twice weekly for as long as one month's time. With the addition of the floraquin tablets, there have been no recurrences.

It is certainly true that the most logical origin for the original infestation is the rectum and in certain selected cases, it is a wise procedure to also treat the rectum. Naturally, patients should have general instruction relative to cleanliness after defecation.

It is well to add that patients who have had the disease for a long time, should have general physical examination and therapeutic measures directed toward improving the general condition. We have seen a number of patients who have had symptoms of trichomonas vaginalis infestation from ten to fifteen years without relief.

All of these patients have gained relief from carbarsone vaginal suppositories but they are more apt to have recurrences if the general condition is not improved to normal. Wendell Long.

Diffuse Adenomatosis of the Colon. By Fred W. Rankin, M.D. and Allen E. Grimes, M.D., Lexington, Ky. The Journal of the American Medical Association, February 27, 1937.

It is indicated that diffuse adenomatosis of the colon has been regarded as a clinical entity for many years, but that the proper conception of the histopathology, especially with reference to malignant tendency, has not existed very long.

Adenomatosis may be present from anus to cecum, but eight times more frequently found in the rectosigmoid and rectum. This is particularly significant in connection with malignancy which is also more frequently found in these locations.

Reports by various investigators seem to indicate a familial tendency.

Lockhart-Mummery is quoted as classifying adenomatosis, pathologically and etiologically, so that they represent four groups: (1) True multiple adenomas. (2) Polyps found in association with hyperplastic tuberculosis. (3) Polyps found in association with old strictures of the colon. (4) Polypoid conditions of the mucosa which result from ulcerative colitis.

A distinction is made between polyposis which "may mean only one or several polyps," and polypoidosis which "indicates that the entire inner surface of the large bowel, from the anus to the cecum, contains polyp-like elevations."

While the authors say, "The cause of true adenomatosis has not been determined," the article appears to indicate the important relationship existing between it and ulcerative and inflammatory processes.

One of the authors (Rankin), in collaboration with Fitz-Gibbon and Grappan, found that, histologically, the tumors fell into three major divisions: (1) Nodular and pedunculated, without indication of being very liable to malignant change; (2) polyps, sometimes very small, with structural changes in both the epithelium and the connective tissue elements; (3) an accentuated form of group two in which the epithelium "had been arrested at so early a state that differentiation was very slight." In this group the polyps were sometimes no larger than a split pea.

The patients have been of an average age of thirty years, but there are exceptions.

"The chief complaint usually is concerned with some alteration in the bowel habitus, particularly diarrhea." There is sometimes a history of recurrent cramps, significant of intermittent obstruction, and "often due to intussusception."

There ought to be a methodical study of the intestinal tract, and proper steps should be taken to eliminate amebiasis, ulcerative colitis, the dysenteries, and other infectious processes.

Attention is directed to the information that might be acquired by digital examination of the lower rectum, the following statement being made: "Quite often the diagnosis is unfolded to the mind's eye by the simple procedure of placing an examining finger into the rectum, where nodular polyps await and do not defy discovery."

Because of the distinct tendency to extensive malignancy, Rankin advises removal of the colon at about its junction with the rectum, the radical operation of colectomy being always preceded about six months by an ileostomy. It has been observed that after an ileostomy "the patient's weight usually registered an appreciable increase, the secondary anemia was frequently overcome without aid of transfusion, and the patient's general health was more sturdy and able to withstand the shock of a major surgical procedure."

Emphasis is placed upon the necessity of a preliminary ileostomy because it permits the colon to be at rest, with "peristalsis at low ebb." In addition, "the ileum is given time for necessary adjustment vital to restoration of fluid balance. At first the substance issuing from the ileostomy is

liquid and more or less continuous, but in time it is altered in consistency to a semi-solid state."

In many cases an attempt is made to spare the rectum, destroying the masses in the rectum by fulguration. The rectum is spared because of the possibility and great desirability of restoring the continuity of the intestinal tract by anastomosis of the ileum to the upper part of the rectum.

The general scheme of operative treatment is summed up in the following quotation from the article: "In any individual case the order may vary because of specific indications, but in a general way we prefer to do an ileostomy, waiting six months during which time the polyps are destroyed, and then doing a subtotal colectomy and finally the anastomosis at a subsequent operation. Then, when one is assured of the adequate function of the anastomosis, the ileostomy may be closed under local anesthesia."

Not only is there a long wait—usually about six months—from the time of the ileostomy to the operation for the removal of the colon, but there is another long wait—from three to six months—from the time of the colectomy to the time when anastomosis of the ileum with the rectum is done, it being understood that at the time of the colectomy the end of the remaining rectosigmoid has been closed and invaginated.

Rankin and his associates report a series of thirteen cases, in seven of which the entire colon and rectum were removed by multiple procedures, and in six cases the colon was removed to the rectosigmoid junction. "In the earlier cases the more radical total colectomy was done for both lesions. Now it is reserved for chronic ulcerative colitis."

In other words, as this reporter understands it, when there is not chronic ulcerative colitis there is an attempt to spare the rectum so that a subsequent anastomosis of the ileum to the upper end of the rectum would be possible.

In the series of thirteen there was one operative death following the second stage colectomy. Another patient died eighteen months following the completed operation from recurrence of carcinoma.

LeRoy Long.

PLASTIC SURGERY

Edited by
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Injuries of the Hands Due to Shattered Porcelain Handles of Water Faucets. Emerson J. Steenrod, M.D., Ralph K. Ghormley, M.D., F.A.C.S., and Winchell McCraig, M.D., F.A.C.S., Rochester. S. G. & O., May, 1937.

The authors report twelve cases of injuries to the hands from porcelain handles of water faucets. They describe the various kinds of injuries which they have encountered in detail.

They point out that most of these cases are best done under brachial block anesthesia, a bloodless field, and absolute sterile conditions. They also point out the advisability of careful neurological examination in each case.

AUTHORS' SUMMARY: Porcelain handles of water faucets are a potential source of serious injury to the hands. The surgeon who sees the patient immediately after the injury has the greatest responsibility and the best opportunity for securing a favorable result. The use of brachial block and general anesthesia has been discussed. The acute injuries of the hand should be carefully cleansed, thoroughly examined, and properly treated so that latent deformity, which may be the result of infection or severed tendons and nerves, can be prevented or at least minimized. The tendon of the flexor pollicis longus muscle and the branches of the median nerve were found to be parts most frequently involved in this type of injury. When the lacerations are extensive it may be necessary to use tendon grafts and skin grafts. Suture of nerve, when indicated, should be performed at once. In cases in which this is delayed, a careful neurological examination should be made so that secondary suture may be facilitated at the time of exploration. Active movement of the hand and physical therapy should be instituted very early.

COMMENT: I have seen two cases of injuries to the hand by porcelain handles of water faucets. One of these was a minor injury, the other involved the median nerve and the tendons of the second and third fingers. There was definite disability following the second case.

I think that in general these cases are treated just as other lacerations of the hand. I believe it is well to hospitalize these cases and treat them as major injuries. As the author points out the surgeon who sees the case first is the man that can do the most good.

Ox-fascia Transplant Operation for Ptosis. H. Rommel Hildreth, St. Louis. Southern Medical Journal, May, 1937.

The author describes his method for ptosis of the upper eye lid by utilization of ox-fascia. He states that the principal innovation in his technique is to use the fascia from the ox rather than autogenous fascia.

He describes in detail the technique employed.

Blair in 1932 published a long series of cases in which he used the fascial sling. Other men have used various kinds of suture material.

COMMENT: It is interesting to note that someone is publishing an operation which is really only a modification of an old one.

Dr. Spaeth gave an exhibit at the last A. M. A. which is really comprehensive on the subject of ptosis of the eye lids. In other words there are iron clad indications for various types of cases. It is important to choose the right type of surgery for children and naturally the type varies with each case.

ORTHOPAEDIC SURGERY

Edited by Earl D. McBride, M.D., F.A.C.S.
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On the Treatment of Tuberculosis Spondylitis in Children. H. Wahren. Acta Orthopaedica Scandinavico, VII, 177, 1936.

Twenty-four cases of tuberculosis of the spine of children under fourteen years of age were observed for from two to fourteen years following the dates of the fusion operations. The patients were kept in plaster beds until the lesions were no longer progressive and were then operated upon according to Albee's technique. After from two to three months more on plaster beds, plaster jackets were supplied. In most of the cases the patients were supported also by leather jackets.

One child of seven years died immediately fol-

lowing the operation, and one of eight years, three years after the operation. The remaining results are tabulated as: good, fifteen; fair, two; and bad, one. There were five cases of fracture of the graft and two of fracture of the tibia. Further progress of the lesion followed the operation in three cases. A relationship between kyphosis juvenilis and tuberculous spondylitis was suggested by one case in which the typical wedging of the thoracic vertebrae was observed six years following the fusion operation at fifteen years of age.

Subchondral Tuberculosis Sequestra. Jerome G. Finger. Annals of Surgery, CIV, 1080, Dec. 1936.

A six-year review of material seen in Dr. Steindler's Clinic, a statistical analysis of eighty-six clinically recognized cases, and a histopathologic study of twenty anatomical specimens serve as a basis for the author's conclusions.

The sequestrum is a subchondral tuberculous necrosis appearing roentgenographically as a wedge-shaped area of increased density, not lying "free" as does a pyogenic sequestrum. The density may be caused by deposits of lime salt in tuberculous caseous material, or by lack of absorption of bone in the necrotic focus, while the surrounding living bone becomes porotic and the picture may be confused by hypertrophic arthritis. The diagnosis is simple and absolute only when the focus is separated and extended toward or into the joint. It is often a diagnostic feature of joint tuberculosis.

Bone infection is usually secondary to joint disease, being primary in only twenty per cent of the cases in this study, invasion occurring at the joint margin where the cartilage is thin. The infarct type of wedge necrosis of bone, due to vascular occlusion, occurs rarely.

The sequestrum when formed can be changed only by: (1) trauma (it is extruded into the joint and ground into fragments or expelled through a sinus); or (2) molecular disintegration. It may be encapsulated in fibrous tissue and remain unchanged indefinitely.

The article is excellently illustrated with some thirty-six histopathological and roentgenographic reproductions.

Sciatic Pain and Its Relief by Operations on Muscle and Fascia. Albert H. Freiberg. Archives of Surgery, XXXIV, 337, February, 1937.

When the piriformis muscle is under tension it can, through its contiguity with the fibers that make up the sciatic nerve, produce a sciatica. The tension may result from muscle spasm incidental to disease of the sacro-iliac joint (which it bridges) or to disease of the muscle itself. The positive response in the Lasegue test and the symptomatic relief obtained by subperiosteal stripping of the gluteus maximus or by fasciotomy of the fascia lata can be traced to changes in the tension of the piriformis. In addition to this, section of the piriformis, an operation which more directly attacks the cause of the sciatica, has been tried and found successful. Although only three such cases are reported, it is implied that other such operations have been performed, with satisfactory results. It is emphasized that complete studies of the factors causing the muscle spasm are necessary before symptomatic relief may be obtained by myofascial operations which release the piriformis tension.

EYE, EAR, NOSE AND THROAT

Edited by Marvin D. Henley, M.D.
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The Gold Ball Implant. Moses Freiberger, M.D., New York. Archives of Ophthalmology, May, 1937.

Ophthalmic surgeons for the past fifty years have used various implants following an enucleation. Some of the various things used are fat, cartilage, bone, ivory, celluloid, paraffin, peat and agar-agar. None of these have been successful. The gold or glass ball are the most popular implants being now used, preferably the gold ball.

The technic of the implantation is discussed. The author in his initial efforts used too large a gold ball. He now uses one not greater than fourteen mm. in diameter. Another early error of his was failure to control oozing of blood within Tenon's capsule. Another important factor is the overlapping of the edges of Tenon's capsule rather than the mere approximation of same when suturing. He decries the mere suturing of the conjunctiva as advocated by some authors.

The technic as given is: four per cent cocaine is placed in the conjunctival sac. The knife is passed around the limbus and the conjunctiva undermined back to the equator. Not more than one cc. of a four per cent cocaine solution is now used to block the three branches of the ophthalmic division of the trigeminal nerve and the ciliary ganglion. The four recti muscles are sutured with 000 catgut to the conjunctiva. The ends of the catgut are cut long and held with a forceps to one side. The eyeball is now removed with as little loss of tissue as possible. Hemorrhage is controlled with cotton saturated with hot saline. A dry packing is then inserted into the socket and the edges of Tenon's capsule are sutured. There are three or four sutures placed about two mm. back from the cut edge of Tenon's capsule, each being carried to the opposite side in a similar manner. The dry packing is removed and the gold ball inserted. The center sutures are tied first and then those on each side, allowing the margins of the capsule to overlap. Sometimes a running suture is used for reinforcement. No. 2 braided silk is used to close the conjunctiva. The four catgut sutures (for muscles) which were mentioned at the beginning are next tied, loosely. He prefers to complete the dressing with a scarlet red ointment. A week later the silk sutures are removed.

Tonsillectomy as a Cure for Peritonsillar Abscess. Forest W. Mercia, Lakewood, Ohio. Archives of Otolaryngology, May, 1937.

The removal of the tonsil in case of peritonsillar abscess is not advocated generally by American laryngologists. In many foreign countries this is a routine procedure and their reports show that this is not attended by the complications that Americans believe exist.

Reports of the experiences of other authors who do a tonsillectomy at this time are reviewed.

The inadequacy of the routine treatment of peritonsillar abscess is discussed. The incision frequently has to be reopened every day or so until the drainage has stopped, in the meantime the pain, temperature and difficulty of swallowing continue.

As the author states, pain is the outstanding symptom of this disease. If a tonsillectomy is performed this is relieved immediately. The patient usually is unable to eat or drink for several days

before the abscess is opened. Immediately following the tonsillectomy the patient is able to take nourishment better than he has for several days and as a result the general condition is improved.

A rational surgical procedure, says the author, is the removal of the tonsil at the time of the formation of the abscess. The anatomy is given: muscle on three sides of the tonsil; anterior is the palatoglossus muscle; posterior palatopharyngeus muscle; external is the superior constrictor muscle of the pharynx. Separation from its bed occurs more easily in the upper half of the fossa and this is the site most frequently of the peritonsillar abscess.

In removal of the tonsil the protective wall of infiltration in the tissues is not disturbed. If the operator is careful the infection is not any more liable to spread than by simple incision. He tries to free the upper portion of the tonsil before the abscess is ruptured. The majority of his cases had nitrous oxide and ether anaesthesia. Electrocoagulation is used to control the bleeding. About the same time is required for healing as in an ordinary tonsillectomy. The technic of the operation is given in detail.

Twenty-one cases constitute the basis of the article.

Bacteriological and Experimental Researches on the Aetology of Trachoma. Drs. A. Cuenod and R. Nataf, Tunis. British Journal of Ophthalmology, June, 1937.

As a result of more than thirty years of experimentation it has been, among other things, shown that there is an infecting virus. This has certain physiological characteristics.

The question asked is does this virus always remain invisible morphologically? In 1929 the authors published a paper entitled "Ultra-virus and Trachoma" in which different aetiological hypotheses were put forward. Since that time confirmation of material in that paper has taken place.

The researches of Charles Nicolle are discussed. "It being agreed that trachoma flourished under the same conditions as exanthemic typhus, and that the two nosographical charts of their world incidence were practically identical, it occurred to us that the louse and the Rickettsias bore some relation to trachomatous infection." One hundred twenty Busacca's publications (of Brazil) also advanced this theory of infection and he has demonstrated that the infra-organism is morphologically demonstrable.

The authors in their own laboratory after careful examination of Giemsa-stained trachoma follicles concluded:

1. There is degeneration of the large mononuclear cells, known as epitheloid cells.
2. Lysis of the cytoplasm of these cells.
3. The presence of tiny granular dots (02 to 05 u) which are very special and very characteristic in the cytoplasm, which may be adherent to the nucleus, or if this longer exists may be present as debris in its neighbourhood.
4. The same dots are present in the protoplasm of epithelial cells as Halberstaedter-Prowaczek inclusions.
5. These granular dots may be found in a free state.

The author describes his latest experiments with inoculation of guinea pigs, laboratory bred lice, Barbary ape (magot), etc. From these he concludes: "Bacteriological and experimental researches have been made showing that the trachomatous virus has a close relationship with an infra-organism of the Rickettsia family—it seems to be proven that trachoma is due to an infection of the conjunctiva with Rickettsias, these being the active principle of the trachomatous virus—we consider that we have proved both morphologically and experimentally that trachoma is a Rickettsiosis, and that the louse forms a reservoir, and is perhaps one of the vectors of trachomatous virus, and probably the principal one."

Observations on the Semicircular Canals. E. W. Peet, London. The Journal of Laryngology and Otology, June, 1937.

The object of the paper is to show that the anatomical relationship of the semicircular canals of one ear to those of the other is inconstant and varies within wide limits.

The relationship of the semicircular canals has been undisputed since in 1874, when Crum Brown of Edinburgh said: "Now we have six semicircular canals, three in one ear and three in the other, and I find in all the animals that I have examined that the exterior canal of one ear is very nearly in the same plane as that of the other; while the superior canal of one ear is nearly parallel to the posterior canal of the other."

European skulls of different ages are used by the author. Photographs are reproduced as evidence of his contention. He concludes: The anatomical relationship of the semicircular canals of one ear to those of the other is inconstant. Examination of the skulls of two children reveals a difference in angle of no less than forty-one degrees between the axis of the superior canal of one side and the posterior canal of the other side. In the four adult skulls, the angle between the posterior canal of one side and the superior canal of the other varies from fourteen degrees to twenty degrees. It would appear that this angle increases with the cephalic index $\frac{(\text{max. breadth} \times 100)}{(\text{max. length})}$

The work of McNally and Tait on the labyrinths of frogs is discussed briefly. Ewald's work on the vertical canal is also discussed. Apparently movement of the endolymph either towards or away from the ampulla stimulates the horizontal canal. The producing of nystagmus by the hot and cold caloric tests tend to bear this out.

Opinions regarding the action of the vertical canals are uniform. Stimulation of a superior vertical canal occurs by a rapid tilting movement towards its ampulla. A tilt in the opposite direction produces stimulation to a lesser degree; this would be the greatest stimulus to the contralateral posterior canal; i. e. if they were parallel.

The author's opinion is that variations from parallelism would not influence this mode of action unless they were excessive.

PRONTYLIN IN TYPHOID FEVER

M. D. Carnell, Okmulgee

Prontylin (sulfanilamide) has been used with great success in infectious cases due to the diplococcus, staphylococcus, and streptococcus, and I have seen many critical cases respond readily to prontosil intramuscularly, and prontylin by mouth. Such brilliant results prompted me to use it in a case of typhoid fever.

P. L. E., female, age nine, became ill on May 13, 1937, with a severe chill lasting two hours, the temperature rapidly rising to 104.2 per orum; pulse 128, and respiration 28. Total W. B. C. 5400; differ-

ential, lymp. 29 per cent, seg. 59 per cent, stab. 9 per cent, and moncytes 3 per cent. She became rapidly toxic; muttering delirium; involuntary peagreen stools; sordes collected heavily on tongue, lips and teeth, the tongue dry, hard and fissured, and abdominal tympanites very marked. Widal positive.

One half tablet of prontylin was administered every four hours. Three days later the temperature dropped to 99° F. All outward symptoms abated. The sordes disappeared as if by magic and the tongue became clear and moist. No other drugs were given. The temperature ranged from 99° F. in the morning to 102° F. in the afternoon, and on the twenty-first day of the disease the temperature dropped to normal and has remained so, this now being the twenty-ninth day since the onset of the disease.

The American College of Physicians Will Meet in New York City, April 4-8, 1938

The twenty-second annual session of the American College of Physicians will be held in New York City, with headquarters at the Waldorf-Astoria Hotel, April 4-8, 1938.

Dr. James H. Means, of Boston, is President of the College, and will have charge of the program of general scientific sessions. Dr. James Alex. Miller, of New York City, has been appointed General Chairman of the Session, and will be in charge of the program of clinics and demonstrations in the hospitals and medical schools and of the program of Round Table Discussions to be conducted at headquarters.

Benzedrine Sulfate in Post-Encephalitic Parkinsonism

P. Solomon, R. S. Mitchell and M. Prinzmetal (Journal A. M. A., May 22, 1937, 108:1765), report a series of twenty-eight cases suffering from classic post-encephalitic parkinsonism were treated with either Benzedrine Sulfate (benzyl methyl carbinamine sulfate, S. K. F.) alone or with the addition of scopolamine or stramonium. Results according to symptoms were as follows:

Symptom	No. of patients exhibiting symptoms	Per cent improved as to symptoms
Lack of energy	26	96%
Inability to work	28	79%
Lack of strength	26	73%
Tremor	16	44%
Rigidity	26	77%
Drowsiness	24	95%
Oculo-gyric crisis	8	100%

Fifteen, or fifty-three per cent, were improved from Benzedrine Sulfate alone and twenty-six, or ninety-three per cent, reported improvement from Benzedrine Sulfate with the addition of stramonium or scopolamine. Benzedrine Sulfate was found to be most effective when used in combination with these two drugs. Results in oculogyric crisis were particularly striking. This symptom was eliminated in six and greatly diminished in two of the eight patients subject to these attacks.

Additional experiments were tried with ten cases of arteriosclerotic parkinsonism and in a selected group of twenty-two psychoneurotics. Results were not favorable in these conditions and in some cases untoward effects developed.

The average maintenance dose in post-encephalitic parkinsonism was ten to twenty mg. two or three times a day, although as much as 160 mg. a day for three weeks was taken by one patient without apparent harm. No evidences of tolerance or habit-formation were observed.

Subcutaneous Emphysema in Bronchial Asthma: Report of Case

J. B. Kirsner, Chicago (Journal A. M. A., June 12, 1937), believes the pathologic physiology of subcutaneous emphysema in bronchial asthma to be due to the rupture of pulmonary alveoli as a consequence of increased intrapleural and intra-alveolar pressure occasioned by the marked difficulty in expiration, typical of bronchospasm. The rupture of an emphysematous bleb or of a cavity apparently permits air to extend through the interstitial tissue of the lung into the loose cellular tissue of the mediastinum and from there to the subcutaneous tissue of the neck and face and over the entire body. The courses that air may take in the production of mediastinal and subcutaneous emphysema have been especially well studied experimentally by Ballon and Francis. They have pointed out some of the consequences of increased mediastinal pressure, particularly the hyperventilation or hypoventilation of the lungs—stagnation of blood in the pulmonary bed, edema of the lungs and development of fluid in the pericardial cavity. In the author's case, hypoventilation could well explain some of the respiratory difficulty; none of the other complications were observed. His normal results with venous pressures are consistant with the results of other investigators in this respect. The significance of the area of consolidation in the left lower lobe seems difficult to evaluate. Interstitial emphysema following influenzal bronchopneumonia has been noted by Kountz and Alexander, Kelman and Harris, among others. Its occurrence has been attributed to toxic action of the infecting agent on the lung parenchyma, on the respiratory center producing dyspnea, cyanosis and resultant emphysema and to ulceration of the bronchial mucous membrane. In the present case it would seem that the acute asthma was the primary factor in the development of the clinical picture with the pulmonary consolidation a secondary complication.

"Pilot Error" and Oxygen Want, With Description of a New Oxygen Face Tent

Alvan L. Barach, New York (Journal A. M. A., May 29, 1937), warns that oxygen want is capable of producing mental impairment and certain physiologic alterations at altitudes at which transcontinental commercial flying now takes place. These disturbances in function of the human organism, induced by a reduced tension of oxygen in the tissues, are aggravated by certain forms of fatigue neurosis. Pilots are apt to develop a characteristic form of fatigue psychoneurosis called aeroneurosis. The combined effect of slight impairment of mental functioning induced by moderate anoxia and overt or latent aeroneurosis may become an influential factor in pilot error. Safety in airplane travel may be increased by recognition of these factors and a prompt application of suitable methods of preventing them by the adoption of compulsory oxygen inhalation for pilots flying at altitudes at or above ten thousand to twelve thousand feet. The author describes a simple oxygen face tent which is practicable, efficient and comfortable. It appears to be a suitable method of oxygen inhalation for pilots, as well as being applicable to the treatment of oxygen want in clinical disease.

More Medical Misinformation From Consumer's Research

Consumer's Research, which formerly limited its publications largely to the confidential bulletin circulated among its subscribers, now comes forth with Consumers' Digest, published by Editor Schlink with a view, no doubt, to reaching a larger audience. An article on "Diet and Common Colds" again emphasizes the inherent fallacy of discussions of medical subjects by untrained writers. This article calls attention to "an important study" by Frederick Hoelzel. Some comments by Hoelzel were reported briefly in Science in 1928 when he was a guest investigator in the Department of Physiology of the University of Chicago. He then wrote that ovservations over a period of years on one subject, himself, suggested a relation between diet and the incidence of colds. Hoelzel had on several occasions practiced periods of fasting. He remained in good health while fasting but invariably contracted a cold when he resumed eating. He reasoned that the diet affected the degree of hydration of the tissues, which in turn was related to susceptibility to colds. High carbohydrate diets increased hydration and susceptibility, and high fat diets decreased both, he thought. Contrary to substantial evidence, Hoelzel suggested that the relative freedom of arctic explorers from colds is due to the decreased carbohydrate intake rather than to the absence of bacteria. In 1934 Hoelzel wrote "I have abandoned the idea of using a high fat diet, such as I advocated in 1928, for the prevention of colds and nutritional hydration." This second article was ignored by the article in Consumers' Digest, which states that a diet consisting of adequate protein with a minimum of carbohydrate "proved to be" the most efficacious in the prevention of colds, while a diet high in carbohydrate with a restricted protein intake was accompanied by difficulty with colds. The recommended diet for the prevention of colds would consist of liberal portions of lean meat, poultry, fish, cheese, eggs and other animal products, with a restricted intake of potatoes, corn, beans, cereal, pastry, candy, syrup, soft drinks, ice cream, sherbet, alcoholic liquors, sweet fruits and—of all things—fruit juices. Again, apparently without adequate consultation with medical authority, and this time even without adequate survey of recently available evidence, Consumer's Research presumes to dispense bad medical advice to its perhaps too trusting readers. —Journal A. M. A., May 15, 1937.

Giantism: Report of Case

Of one hundred twenty-four letters and cards requesting reprints of and/or making comments about a recent paper of his on giantism, seventy-one informed Charles D. Humberd, Barnard, Mo., (Journal A. M. A., February 13, 1937), of a remarkable schoolboy giant at Alton, Ill. This giant has received much newspaper and magazine publicity; the author's clippings about and photographs of him, over a period of eight years, fill two large scrapbooks. But the popular accounts of his height vary so much in stating his dimensions that their accuracy was questionable. He recorded the history and measurement at his home, June 2, 1936. The giant is a white youth, single, aged eighteen years three and one-third months, is just completing the first semester of his freshman year in college. He is a preacromegalic giant, eight feet three and one-quarter inches (252 cm.) tall, of phenomenal size, molded on a vast scale, colossal and stupendous in bulk, truly Gargantuan in all his proportions, and symmetrically built. His anthropometric picture is given. His present weight, he says, is three hundred ninety-five pounds (179 Kg.) in ordinary clothes. The thick lips, coarse nose, increasing depth of the chin and general enlargement of the soft parts of the face, as noted when earlier photographs are compared, suggest that an acromegalizing process is already beginning and can be expected to become prominent in the near future.

Lipoma of Tongue

Ferris Smith, Grand Rapids, Mich. (Journal A. M. A., February 13, 1937), reports a case of lipoma of the tongue in a woman of forty-five in whom the presenting mass was the size of an orange. She stated that she had first noted a mass the size of a pea on the right tip of her tongue seventeen years previously. Nine years later the mass had reached such a size that she had to discard her dentures and take soft foods only. She was "treated by a quack cancer specialist without relief" two years later. During the past six years she had remained at home "expecting to die from her cancer." The tumor was removed under local anesthesia. A flap of the epithelial covering was raised from the anterior third of the tumor and the mass was resected. The left half of the tongue was employed to repair the loss on the right side with a moderate foreshortening which interferes with neither speech nor function. Sixty days after operation some readjustment of the lips and cheeks had taken place. The histologic report was "simple lipoma." The mass weighed 320 gm. and measured eleven cm. by nine cm. by seven cm. The author gives the essential available data concerning the lipoma of the tongue: age of appearance, sex, origin, geographic location, histologic location, character, diagnosis and treatment.

Experimental Studies With Sulfanilamide and With Prontosil in Hemolytic Streptococcus Infections

Ralph R. Mellon, Paul Gross and Frank B. Cooper, Pittsburgh (Journal A. M. A., May 29, 1937), report the results obtained by treating mice infected with hemolytic streptococci of different virulence levels with sulfanilamide and with prontosil. Two strains of hemolytic streptococci were used: the "Stoddard" strain, isolated from a case of septicemia at the Western Pennsylvania Hospital, and the "Pion" strain, which was obtained from the Pasteur Institute. The former had spontaneously acquired high virulence without animal passage and was used at the time of maximal virulence and also during a period of spontaneously diminishing virulence. The latter culture was considered moderately virulent. Both sulfanilamide and prontosil exhibit marked therapeutic effects in mice against hemolytic, streptococcus infections. This effect obtains for strains of both medium and high virulence. Their experiments show no indication that phagocytosis is a factor in the mechanism of the therapeutic action of these drugs. Proper treatment of guinea-pigs with sulfanilamide results in a localization and rapid healing of experimental intradermal hemolytic streptococcus infections, which in the untreated animals may disseminate with fatal results. No qualitative changes in the character of the histologic response to the hemolytic streptococcus as a result of sulfanilamide administration have been noted.

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